A

Arranging 2 Workbook

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CONTENTS

CHAPTER ONE
INTRODUCTION TO THE COURSE

General Information

It is essential that the student of this course have a good working knowledge of how to arrange for the rhythm section. Other requirements include the understanding of melodic and harmonic analysis, the construction and alteration of chords, and the principles of chord progression.

The course deals with the arranging for as many as five wind instruments. Techniques for writing solos, soli, and backgrounds will be discussed. The methods presented in this book are in use by today's professional arrangers and are applicable to virtually every style of popular music and jazz. The information contained herein may be employed immediately. It should also be retained in the student's memory as part of a permanent inventory of valuable arranging techniques.

Instrumentation

The instruments to be dealt with are the Trumpet, Tenor Trombone, Alto Saxophone, Tenor Saxophone and Baritone Saxophone. In addition to giving extensive information about each of these instruments, the chapter on Instrumentation is also offered as a model for learning about additional instruments. The student is advised to seek out similarly comprehensive information about any other instruments which may be encountered in subsequent studies.

The Instrumentation chapter includes information beyond the scope of what is to be used in this course. The purpose is to give the student a fairly complete overview of the capabilities and limitations of each instrument. That way, the restrictions imposed for the purposes of the course will not be misunderstood as being applicable to all situations.

Arranging Defined

It should be understood that the term "arranging" literally refers to the manipulation or adaptation of a thing or group of things. When instructions are given that a song is to be played once through in a certain key, repeated in a different key and then ended, those instructions actually constitute an arrangement.

However, when referred to in this course, and in the music business in general, arranging is understood to include orchestration as well as routining. An arranger is expected to be able to create introductions, countermelodies, interludes and endings and to score them expertly for the appropriate instruments and/or voices.

Communication

The reason for writing an arrangement is to communicate a musical experience to an audience through the performance of the musicians who interpret that arrangement. A major responsibility of the arranger is to conceive those ideas clearly and to write them in such a way that the musicians will have no doubts about what and how they are to perform. In order to fulfill this responsibility, the arranger must notate his/her score legibly and pay attention to details such as articulation and dynamics.

Playability

The experienced arranger is careful to ensure that the music is as easy to understand and as convenient to play as possible. Some of the steps toward achieving that end are:

1. Know what sound you intend to create.
2. Understand the instruments, their positive qualities and their limitations.

3. Write with respect for those values.
4. Be aware of considerations of endurance as they apply to each instrument in each situation.
5. Notate accurately.
6. Use universally understood symbols and terminology.
7. Give as much (but only as much) information regarding tempo, dynamics, articulation and expression as is necessary for accurate interpretation of the music.
8. Write a legible score.
9. See that parts extracted (copied) from the score are accurate and that they conform absolutely with the routine and notation of the score.
    a. No repeats should exist in a part that are not in the score, and vice versa.
    b. Rehearsal indications and bar numbers must be consistent between score and parts.
    c. All pertinent information must be accurately placed in the parts.

Final Words Every professional arranger has learned through experience that the best sounding music is the most playable music. Clearly thought out ideas which can be executed with reasonable ease are far more satisfactory than vague concepts which cause the performer undue worry and effort.

CHAPTER TWO
INSTRUMENTATION

It is expected that the student of this course is already competent at writing for the rhythm section. In addition to knowledge of rhythm section writing, an understanding of the trumpet, trombone, alto saxophone, tenor saxophone and baritone saxophone will be necessary for the completion of the assignments and projects connected with this course. The basis for that knowledge is provided on the following pages.

The limitations and advice which are given are primarily designed to pertain to the instruments when they are played reasonably well. Players who may be considered excellent or who fall into the category of "virtuoso" will circumvent most of the problems. Players whose abilities are below average are more likely to be adversely affected by the instruments' quirks.

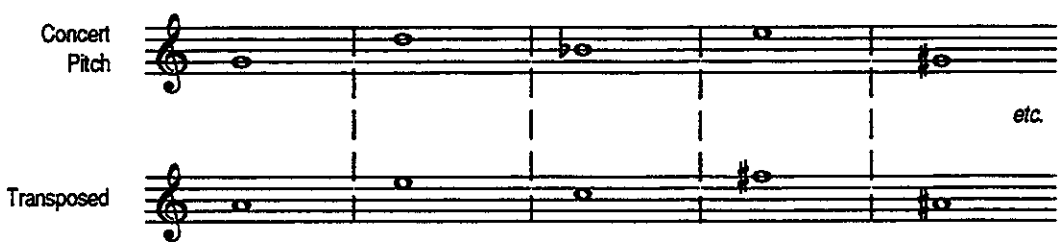
There are many instruments which will not be discussed here. The group that is included will allow the student ample opportunities to try out the harmonization and voicing techniques which are covered in this book. Other instruments may be studied in various advanced courses in scoring and arranging.

The serious student of arranging should spend some time learning to play, at a very basic level, some of the instruments for which he/she will be writing. The information gained from studying the instruments from the player's standpoint is of immense value to the arranger. There is no substitute for knowing what it feels like to produce a musical passage on an instrument when it comes to writing intelligently for that instrument.

Trumpet
(A member of the Brass Family)

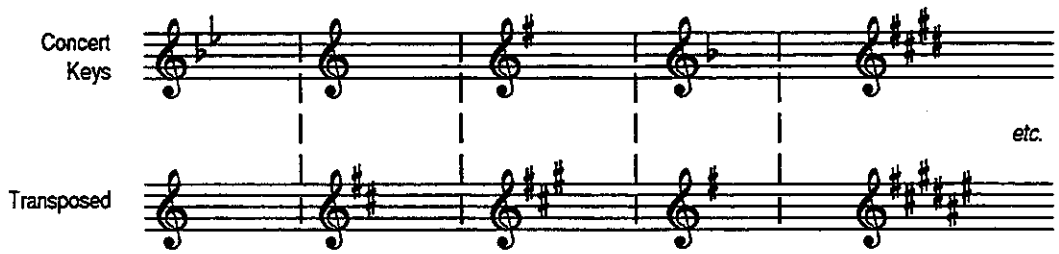
The trumpet used most commonly in jazz and pop music is the B-flat trumpet. This is a transposing instrument which requires that its music be transposed up a whole step from concert pitch.

Ex. I



Key signatures on the B-flat trumpet part must also be transposed. This can easily be done by adding two sharps to the concert key signature or by subtracting two flats from it.

Ex. II



In a "concert score," music for the B-flat trumpet is written in the concert key. In a "transposed score," its music is written transposed. When the individual trumpet part is copied from a concert score, it must be transposed as explained above. When the individual trumpet part is copied from a transposed score, it is copied "as is" i.e., no further transposition is done.

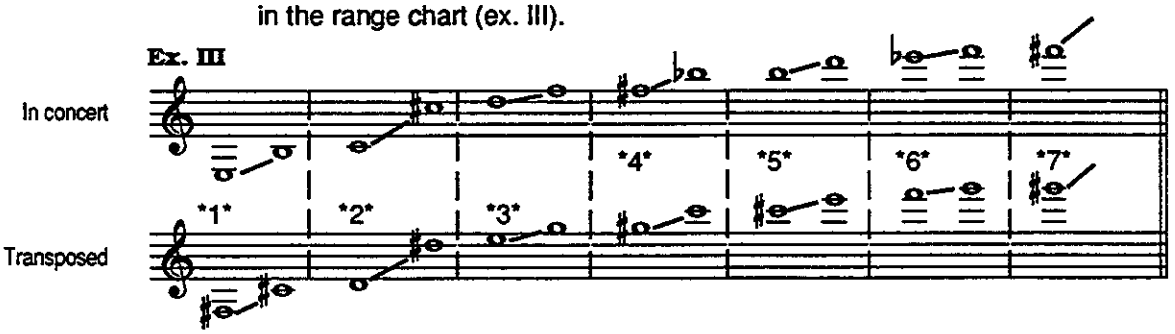
This instrument is played by the manipulation of its three valves in conjunction with changes in the player's embouchure and air stream.

Trumpet music is always written in the treble clef, whether in the score or on individual parts.

Ranges

The following descriptions apply to the open (i.e., unmuted) trumpet. The effects of various mutes on timbre, range, dynamics, projectability and endurance will be discussed later. The numbers surrounded by * 's refer to individual areas in the range chart (ex. III).

Ex. III



1 This area is often described as muddy or fluffy. The production of a clear tone and the projection of sound are difficult. Intonation can also be a problem. However, when a well-trained player uses this register the effect can be quite warm and pleasing. It is better not to write leaps down into this area from above, but reasonable leaps upward into *2* are practical.

Endurance is a problem.

Dynamic range: *p...mp*

2 This is the most-used low end of the trumpet's range. The tone is clear and rich, though the bottom three semitones may convey the characteristics of *1*.

Projection is good. Blendability is excellent.

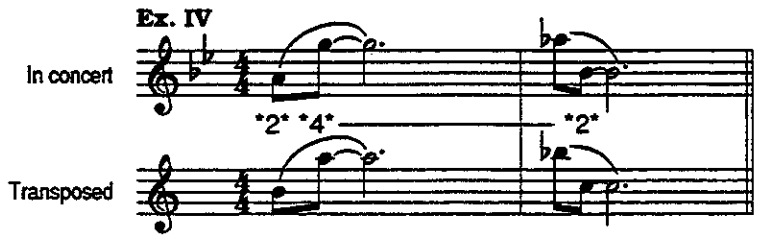
Reasonable leaps in and out of this area are easily executed.

Endurance is not a problem.

Dynamic range: *pp...ff*

3 This is a bridge between *2* and *4* and should be considered an extension of either area. Here the trumpet can be at its brightest or stay covered if need be. Leaps in and out of *3* are fine, but those which straddle it, such as those shown in ex. IV are somewhat troublesome.

Ex. IV



Endurance is not a problem.

Dynamic range: (*pp*)*p...ff*

1. Warnings in this chapter having to do with "leaps" apply only to legato passages, such as in Ex. IV. When the first note of a wide melodic interval is staccato, or when the two notes involved are separated by a rest, leap restrictions need not be observed.

4 This is the high end of the range for most small group writing, particularly when other instruments are voiced harmonically under the trumpet lead. The sound is clear and bright; projection is excellent.

From this area upward, it is virtually impossible for the trumpet to be "hidden" within a voicing. For that reason it should be used only for strong lead work or to play harmony under another trumpet. Endurance depends a great deal on the individual player's ability, especially regarding embouchure and control of air stream. In any case, this is a demanding register. Avoid using it when the capability of the trumpet player is of less than professional caliber.

Even in appropriate situations, don't write in this area for more than approximately sixteen bars at a time. Surround any prolonged use of this register with at least a few bars rest before and after the passage.

Reasonable leaps in and out of this area are practical.

Dynamic range: *mf...ff*

5 This area is the top end for the average professional big band lead player. The sound is very strong and bright. Projection is excellent. When writing this high, it is the arranger's responsibility to support the trumpet firmly with the under voices.

Endurance is relative to the calibre of the player. Eight bars of playing primarily in this range will be quite demanding. Also keep in mind that more than that amount of high brass sound (in one passage) will probably not be in the best taste, musically.

A span covering *3*,*4* and *5* is often used for a shout chorus or other strong ensemble statement. Such a phrase should not cover more than sixteen bars, approximately eight bars of which may be spent in *5*. Reasonable leaps between *5* and *4*, in either direction, are practical for a highly skilled lead player.

Dynamic range: (*f...*) *ff*

6 This is an extension of *5* for lead players with the ability to play a bit higher than average. Playing in this area should not be required for more than a few bars at a time. It should be saved for logically developed climaxes or for purposely startling effects. Allow plenty of rest time before and after use of this area. The sound is shrill but effective when properly written and played. Do not use *6* merely because there is a player available who is able to play that high. There should be a definite musical reason for such usage.

Leaps up into *6* from *5* and from the top end of *4* are possible but risky. Stepwise motion is much safer. Leaps downward from *6* are relatively difficult to perform.

Dynamic range: *ff*

7 From this note upward is the domain of the high note specialist, sometimes referred to as a "screech" player. This area is rarely used in written music. When it is written, the arranger should be fully aware that it involves a large element of chance.

7 is not really in the lead range because it is usually impractical. The most effective written use of *7* is playing melody in a multi-octave unison passage. Even this is often done at the option of the screech player. The part is written an octave lower than screech range and marked "8va if possible". When the player feels capable of executing the higher option he/she does so; if not, the passage is performed in the lower octave.

The master high note specialists (of whom Cat Anderson was the greatest) were sometimes encouraged to improvise over the rest of the ensemble, which would be playing written parts. To hear the best examples of this, listen to the numerous Duke Ellington recordings on which this glorious phenomenon occurs.

It should be noted that the lead player on a particular arrangement is normally not the screech player on that selection. In fact, quite a few high note artists routinely played third or fourth trumpet in the section in order to save their lips for stratospheric exploits.

Dynamic: *ff*

Mutes

Placing a mute in the bell of a trumpet alters the timbre of the instrument. It may also decrease the volume (dynamic level) of the sound; however, the main reason for using a mute is to produce a different musical color.

Although many types of trumpet mute have been devised, this discussion will deal with only two. These are the most commonly used today in solo and small group work. It is necessary to pay close attention to the various sounds produced by a muted trumpet. Listen to live performances as well as recorded examples. Only in this way will you have sufficient references to those sounds to be able to use them artistically in your writing.

All mutes cause difficulties in extreme areas of the instrument's range. Mutes may also have a negative effect on endurance. Therefore, when writing for muted trumpet in assignments for this course use only areas "2" and "3". If this recommended range for mute use is observed, the risks of bad intonation, dynamic insufficiency, and difficulty in producing sound will be considerably reduced.

Harmon Mute

The Harmon mute has a movable "stem" which may be utilized in various ways to modify the sound. The three conditions of the stem are (1) fully inserted, (2) extended and (3) removed entirely. The Harmon mute reduces the volume of the trumpet more than other mutes do. The greatest reduction in volume occurs when the stem is removed. The extended stem allows for the most penetrating sound.

Dynamic range: *pp...mp* (*mf*)

Indicate the use of this mute by writing (1) "Harmon mute, stem in", or (2) "Harmon mute, stem extended", or (3) "Harmon mute, no stem". (Note: Many arrangers use "stem out" in place of "no stem"; the problem with that is that "stem out" could be interpreted to mean that the stem is extended.)

AT LEAST four bars of rest in a moderate tempo should be allowed so that the player may seat the Harmon mute securely into the bell of the trumpet. Also keep in mind the fact that rest time gives the player an opportunity to relax and prepare his/her embouchure for the next passage. Allow at least two bars' rest in a moderate tempo for the mute's removal.

Cup Mute

The cup mute is easier for the player to use than the Harmon mute. The main reason for this is that the cup mute creates less interference with the air stream, resulting in better intonation, a somewhat extended usable range, and improved endurance. The dynamic range for the cup is also wider than that of the Harmon.

Allow sufficient time for the player to insert the cup mute into the trumpet's bell. (Four bars' rest is adequate except at very fast tempi.) Two bars' rest will usually allow for the mute's removal.

Dynamic range: *pp...mf*(*f*)

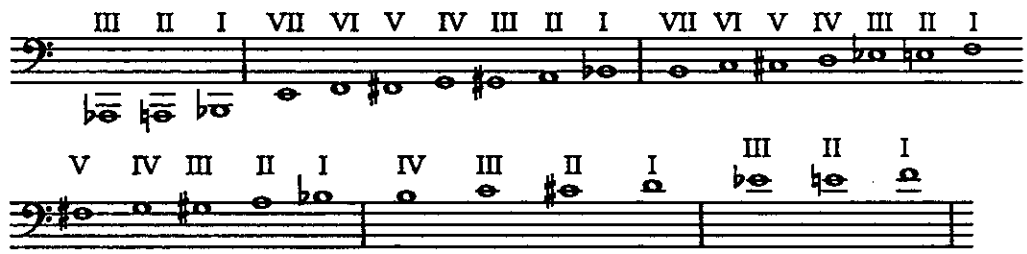
Tenor Trombone
(A Member of the Brass Family)

This non-transposing instrument is played by the manipulation of its slide into various positions in conjunction with changes in the player's embouchure and air stream. Note that some tenor trombones are built with an "F trigger" attachment which adds notes to the bottom register and permits alternative slide positions for some notes in the instrument's normal range. This course will not deal with triggered instruments.

Slide Chart (abridged)

The Slide Chart is included to make the student aware of the relationship between slide position and the pitch produced. Seventh position (VII on the chart) requires the slide to be fully extended; first position (I) involves no extention at all.

Ex. I



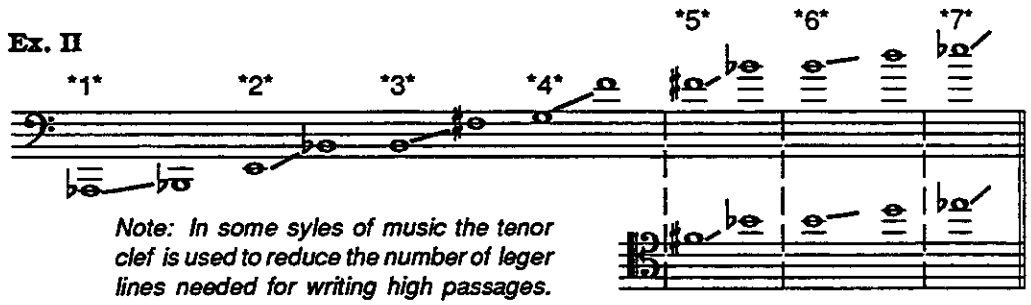
Note: all pitches higher than those shown in this chart are attainable in short positions.

Technically demanding passages should not be written for the trombone when positions longer than IV are required. The best range for such passages is from middle C upward, because in this area the use of positions longer than III can be avoided. In V, VI and VII the instrument speaks more slowly and slide manipulation is awkward.

Ranges

The following descriptions apply to the open (unmuted) trombone. The numbers surrounded by *'s refer to individual area in the Range Chart (Ex. II).

Ex. II



Note: In some syles of music the tenor clef is used to reduce the number of leger lines needed for writing high passages. However, tenor clef is not commonly used in jazz and pop music.

1 This is the area of "pedal notes," which are reserved for special effects and should be employed only by experienced arrangers.

Dynamic range: *pp...mf*

IMPORTANT NOTE: between the pedal B-flat in *1* and the E in *2* there is a gap in the trombone's range. Pitches from B-natural (a half step above the B-flat pedal) up to E-flat (a half step below the bottom note in *2*) cannot be produced on the untriggered instrument.

2 This is the bottom of the trombone's normal range. Good players can produce a fairly strong sound in this area; less capable players will have trouble "centering" the tone, especially in the longer positions. It is better not to write leaps down into this area, but reasonable leaps upward into *3* are practical.

Endurance is a problem because of demands on the air stream. It takes a lot of breath to produce and sustain sound in this register.

Dynamic range: *pp...mf*

3 This is a good low area, particularly from the D upward. The sound is well centered and has good projection; blendability is excellent. It is better not to write leaps down into this area, but reasonable leaps upward into *4* are practical.

Endurance is not a problem.

Dynamic range: *pp...mf (f)*

4 This is a very safe and much used area. The tone is clear and dependable; blendability and projection are both excellent. Technical facility is at its best because no position longer than IV need be employed and pitches are easy to attack with accuracy. Reasonable leaps within this area are performed comfortably, as are those between *4* and *5*, in either direction.

Endurance is not a problem.

Dynamic range: *pp...ff*

5 This is the top of the written range for most small group situations. The sound is very bright and clear, but blendability can be a problem when the trombone is playing harmony in a passage with a dynamic marking softer than *mf.*

As stated above, reasonable leaps between *5* and *4* are easily executed. Endurance depends a great deal on the particular player's embouchure and air stream. This is a demanding register: avoid using it for more than sixteen bars at a time. Surround any prolonged use of this area with at least a few bars of rest.

Dynamic range: *(mp) mf...ff*

6 This is the top end for most big band writing. Its dependable use requires an excellent player. The inexperienced arranger should avoid areas higher than *5* altogether. When *6* is used in small group writing it is usually reserved for loud unisons.

Leaps between *6* and *5* in either direction are handled well only by expert players. Even when it is justified, playing in this area should not be required for more than a few bars at a time.

The sound is very strong but somewhat thinner than in the lower areas. Endurance is definitely a problem. Use of this area should be of short duration and surrounded by adequate rests.

Dynamic range: *(f...) ff*

7 From this note upward is the domain of the player who has an extremely well-developed and extended high register. This area is used almost exclusively for improvised solo work. The arranger is advised to avoid it totally.

Dynamic range: *f*

MUTES Placing a mute in the bell of the trombone alters the instrument's timbre. It may also decrease the volume (dynamic level) of the sound; however, the main reason for using a mute is to produce a different musical color.

Although many types of trombone mute have been devised, this discussion will deal with only one, the CUP MUTE.

Ex. III

Listen to live performances as well as recorded examples of the muted trombone. Only in this way will you have sufficient references to those sounds to be able to use them artistically in your writing.

All mutes cause difficulties in the extreme areas of the instrument's range. They may also have a negative effect on endurance. Therefore, any writing for muted trombone in assignments for this course should be restricted to the range shown in Example III.

The only mute regularly used today in small group work is the cup mute.

The cup mute is valuable because it allows a fairly wide dynamic fluctuation. Also, depending on register and dynamic level, the cup permits variations of sound quality ranging from mellow to piercing.

Allow at least four bars of rest at a moderate tempo for the insertion of the mute and at least four bars for its removal. The reason for suggesting more time for mute removal than is required for the trumpet is that the trombone cannot be played with only one hand. The trumpeter, after taking the mute from the bell, may immediately resume playing be fingering the valves with the right hand while the left hand places the mute in its resting place. The trombonist, however, must dispose of the mute entirely before s/he may resume playing.

Dynamic range: *pp...mf (f)*

General Notes on Saxophones

(a) All saxophones are members of the Reed (Woodwind) Family

(b) The saxophone is played by the manipulation of its many keys in conjunction with changes in the player's embouchure and air stream.

(c) Endurance does not present the same type of problem for saxes that it does for brass. The reed which is attached to the sax mouthpiece is set into vibration when the air stream passes from the player's mouth through the mouthpiece, into the instrument. Therefore, the demands on the muscles which control the embouchure are far less strenuous for sax players than they are for brass players, whose lips must vibrate to produce the sound.

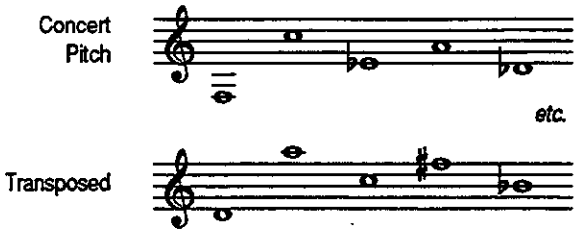
This is not meant to imply that saxes should be used relentlessly throughout an entire arrangement. The saxophonist's lip is deserving of reasonable rest periods; so is the listener's ear.

(d) Although the fingerings are virtually the same on all types of saxophone, the ability to play one (e.g., the alto) does not necessarily imply equal ability to play another (e.g., the baritone) well. The competent doubler must spend a great deal of time working to understand the differences in timbre and function between the various saxes.

Alto Saxophone
(A member of the Reed Family)

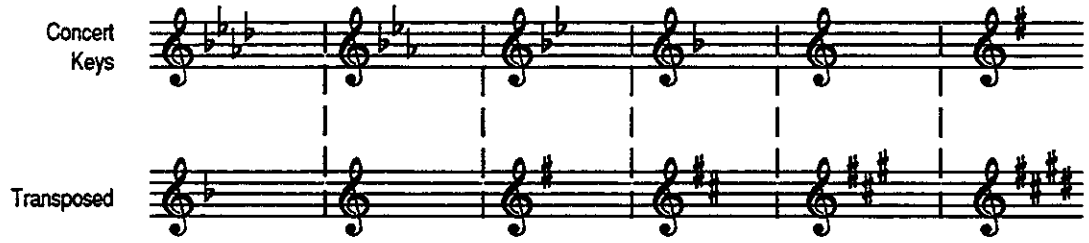
The E-flat alto saxophone is a transposing instrument which requires that its music be transposed up a major 6th from concert pitch (ex. I).

Ex. I



Key signatures on the alto saxophone part must also be transposed. This can easily be done by adding three sharps to the concert key signature or by subtracting three flats from it (ex. II).

Ex. II

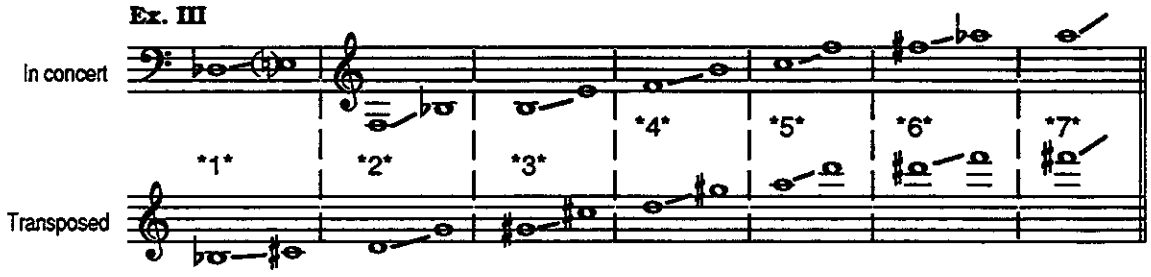


In a "concert score" music for the alto saxophone is written in the concert key. In a "transposed score" its music is written transposed. When the individual also sax part is copied from a concert score, it must be transposed as explained above. When the individual part is copied from a transposed score, it is copied "as is;" i.e., no further transposition is done.

Music transposed for the alto saxophone is always written in the treble clef, whether in the score or on individual parts. In a concert score, the bass clef may sometimes be used for the extreme low end of the also sax's range; however, the treble clef is used most of the time.

Ranges The numbers surrounded by * 's refer to individual areas in the range chart (ex. III).

Ex. III



1 The four notes in this area are very difficult to control, especially at dynamics softer than *f*. The sound quality produced down here is a rather unmusical "honk" except when the instrument is being played by an expert.

Projection is strong; blendability is poor.

Leaps down into *1* are difficult to execute, but leaps from *1* up into *2* or *3* are fairly easy in appropriate musical situations. Technical facility is problematic. Only experienced arrangers should delve into this area.

Dynamic range: *(mf) f...ff*

2 This strong, dependable low area of the alto's range offers excellent harmonic and melodic support in reed and/or brass voicings.

Projection is excellent; blendability is good.

Written solos rarely occur in this area but improvisers often make use of its rich tone quality. Leaps between *2* and *3*, in either direction, are easy to perform. Reasonable upward leaps from *2* to *4* are also easy; however, written leaps from *4* down to *2* are to be avoided.

Dynamic range: *(pp) p...ff*

3 This is an extension of *2*. The main difference is that *3* doesn't have quite the rich bottom sound that characterizes *2*. Also, in *3* it is easier to play at extremely soft dynamic levels. In fact, this is the area best capable of producing a "whisper-like" sound. It is here that marks the low end of most written solos and of lead work for the alto.

Projection and blendability are both excellent.

Dynamic range: *pp...ff*

4 Here the tone becomes somewhat brighter than in the lower areas, yet it is still rich and full.

Projection is excellent; blendability is very good.

Reasonable leaps between *4* and *5*, in either direction, offer no problems to the capable player.

Dynamic range: *pp...ff*

5 This is the brightest part of the alto sax's range. It is a clear and singing extension of *4* even though the tone does thin out a bit. As may be inferred from what has been said, the best range for written solos and lead parts is comprised of *3*, *4* and *5*.

Projection in *5* is excellent; blendability and intonation may become a problem in the upper two semitones.

Dynamic range: *(pp) p...ff*

6 This area contains the highest three semitones in what is considered the legitimate range of the instrument. The tone quality is bright but noticeably thinner than in *5*. Good intonation requires excellent musicianship on the part of the player. Technical facility is nearly as problematic here as in *1*. Inexperienced arrangers should avoid using this area.

Dynamic range: *(p) mp...f (ff)*

7 This is the beginning of the altissimo register. Notes from this point upward are not really "built into" the saxophone; they are produced by using a set of fingerings which often differ from player to player and from instrument to instrument. These notes also require special manipulation of the embouchure and the air stream.

Even professional arrangers rarely write in this area because of the uncertainty connected with the sound, intonation and technical facility. *7* is best reserved for use in improvised solos

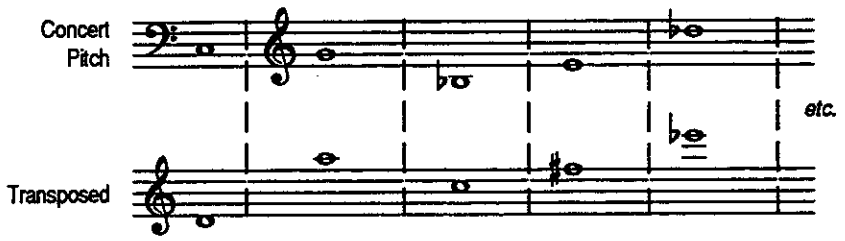
Projection is generally strong; blendability is poor.

Dynamic range: *mf...ff*

Tenor Saxophone
(A member of the Reed Family)

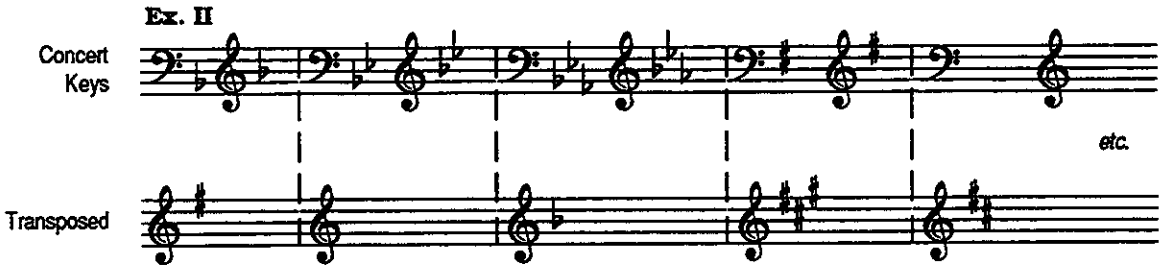
The B-flat tenor saxophone is a transposing instrument which requires that its music be transposed up a major 9th (an octave plus a major 2nd) from concert pitch.

Ex. I



Key signatures on the tenor sax part must also be transposed. This can easily be done by adding two sharps to the concert key signature or by subtracting two flats from it.

Ex. II

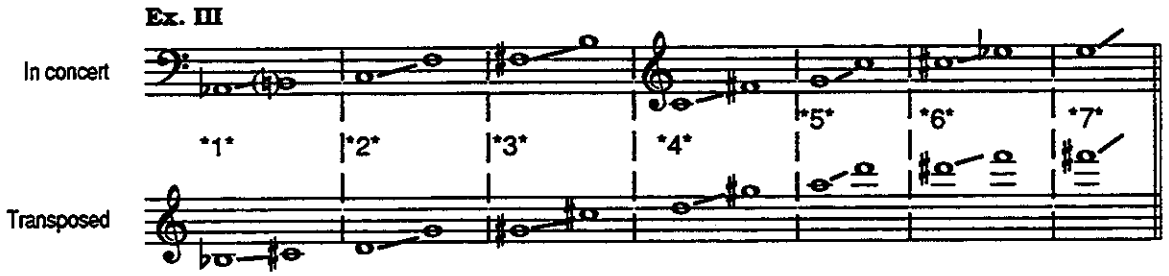


In a "concert score," music for the tenor saxophone is written in the concert key. In a "transposed score" its music is written transposed. When the individual sax part is copied from a concert score, it must be transposed as explained above. When the individual part is copied from a transposed score, it is copied "as is;" i.e., no further transposition is done.

Music transposed for the tenor saxophone is always written in the treble clef, whether in the score or on individual parts. In a concert score the bass clef is used for the lower part of the tenor's range and the treble clef is used for the upper areas.

Ranges The numbers surrounded by *'s refer to individual areas in the Range Chart (ex. III)

Ex. III



1 The four notes in this area are difficult to control at dynamics softer than *f*. Still, the tenor's sound quality in *1* is better than that of the alto sax because the tenor is built to function as a lower-sounding instrument.

Some tenor players have developed an ability to play softly in this area while soloing. However, the arranger should not write parts which would require such exceptional craft.

Projection is strong; blendability is generally poor.

Leaps down into *1* are awkward to execute, but leaps from *1* up into *2* or *3* are fairly easy in appropriate musical situations. Technical facility is problematic; only experienced arrangers should delve into this area.

Dynamic range: *(mf) f...ff*

2 This strong, dependable low area of the tenor's range offers excellent harmonic and melodic support in reed and/or mixed voicings.

Projection and blendability are excellent.

This is an area of warm, rich tone which may be utilized in both written and improvised solos.

Leaps between *2* and *3*, in either direction, are easy to perform; reasonable upward leaps from *2* into *4* are also easy. Written leaps from *4* down into *2* are to be avoided.

Dynamic range: *pp...ff*

3 This is an extension of *2*. The main difference is that *3* doesn't have quite the rich bottom sound that characterizes *2*. Also, in *3* it is easier to play at extremely soft dynamic levels. In fact, this is the area best capable of producing a "whisper-like" sound.

Projection and blendability are both excellent.

Dynamic range: *pp...ff*

4 Here the tone becomes a bit more strident than in the lower areas, but it remains rich and full.

Projection is very good; blendability is excellent.

Reasonable leaps between *4* and *5* in either direction offer no problems to the capable player.

Dynamic range: *pp...ff*

5 This is an extension of *4*, even though the tone does thin out a bit. Projection and blendability are excellent; intonation may become a problem in the upper two semitones.

Dynamic range: *pp...ff*

6 This area contains the highest three semitones in what is considered the legitimate range of the instrument. The tone quality is similar to that of the top end of *5* but it is noticeably thinner. Good intonation requires excellent musicianship on the part of the player. Technical facility is nearly as problematic here as in *1*. Inexperienced arrangers should avoid using this area.

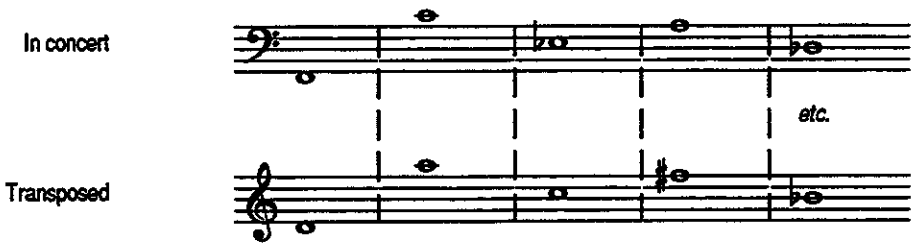
Dynamic range: *(pp) p...ff*

7 This is the beginning of the altissimo register. Refer to the comments about *7* in the Alto Saxophone discussion.

Baritone Saxophone
(A member of the Reed Family)

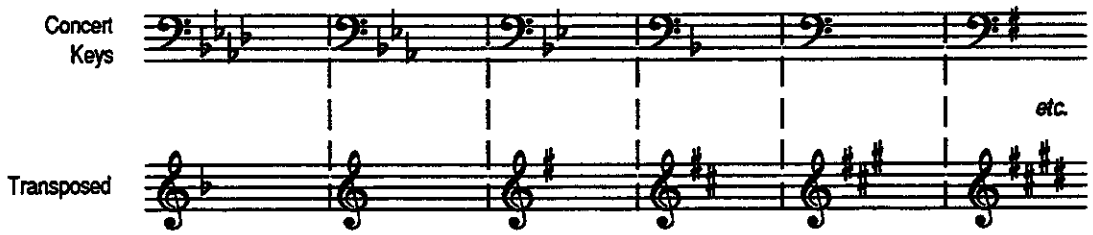
The E-flat baritone saxophone is a transposing instrument which requires that its music be transposed up a major 13th (an octave plus a major 6th) from concert pitch.

Ex. I



Key signatures on the baritone sax part must also be transposed. This can easily be done by adding three sharps to the concert key signature or by subtracting three flats from it.

Ex. III



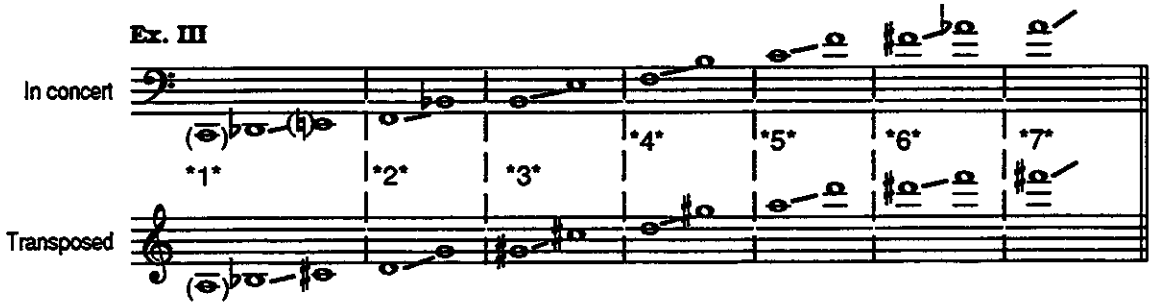
In a "concert score," music for the baritone sax is written in the concert key. In a "transposed score," its music is written transposed. When the individual baritone sax part is copied from a concert score it must be transposed as explained above. When the individual part is copied from a transposed score it is copied "as is"; i.e., no further transposition is done.

Music transposed for the baritone saxophone is always written in the treble clef, whether in the score or on individual parts. In a concert score, baritone parts should be written in the bass clef.

Ranges

The numbers surrounded by * 's refer to individual areas in the Range Chart (ex. III)

Ex. III



The parenthesized note is not available on all baritone saxophones.

1 The baritone sax was specifically designed to play low notes. Therefore, *1* is a relatively comfortable area for dedicated players of this instrument. Playing in *1*, the baritone can put a solid bottom under small groups, sections and large ensembles.

Projection is excellent. Blendability has the potential for being very good, depending on the player's ability to control the instrument. Leaps down into *1* from *2* are common in baritone parts. Leaps from *1* up into *2* or *3* are easy to perform. Technical facility is problematic, but baritone players work hard at overcoming the difficulties because so much music is written for them in *1*. It must be recognized that a great amount of air is required to sustain notes down here. Two bars at a slow tempo or four bars at a fast tempo are reasonable limits for playing in *1* without the opportunity to breathe.

Dynamic range: *(p) mf...ff*

The craftsmanship and talent of the individual player will determine how softly these notes may be played. Serge Chaloff, a master of the instrument, was able to "whisper" all the way down to the bottom note on the instrument. Such artistry, however, is rare.

2 This is an extension of *1* though it lacks some of the ringing sonority of the instrument's bottom notes. Leaps between *2* and *3*, in either direction, are easy to perform. Reasonable upward leaps from *2* to *4* are also easy; however, written leaps from *4* down into *2* are to be avoided.

Projection and blendability are excellent.

Dynamic range: *pp...ff*

3 This is an extension of *2*, but the sound here begins to lose a little of its foundation-like firmness.

Projection and blendability are excellent.

Dynamic range: *pp...ff*

4 Here the baritone loses its ability to "anchor" harmonized voicings in the way that is typical of *1*, *2* and *3*. However, the tone is rich and full and contributes beautifully to properly voiced harmonic or unison passages.

Reasonable leaps between *4* and *5* in either direction offer no problems to the capable player.

Projection is very good; blendability is excellent.

Dynamic range: *pp...ff*

5 This is an extension of *4*, and even though the tone quality begins to thin out somewhat, it is clear and still quite rich. Projection and blendability are excellent. Intonation may become a problem in the upper two semitones.

Dynamic range: *pp...ff*

6 This area contains the highest three semitones in what is considered the legitimate range of the instrument. The tone quality is similar to that of the top end of *5* but is noticeable thinner. Good intonation requires excellent musicianship on the part of the player. Technical facility is nearly as problematic here as in *1*. Inexperienced arrangers should avoid using this area.

Dynamic range: *(pp) p...ff*

7 This is the beginning of the altissimo register; refer to the comments about *7* in the Alto Saxophone discussion.

Instrumentation Summary

On every wind instrument some notes are easier to play and control than others. Difficulties usually occur at the extremities of the instrument's range. Timbre (sound characteristic) tends to vary in different areas of an instrument's range.

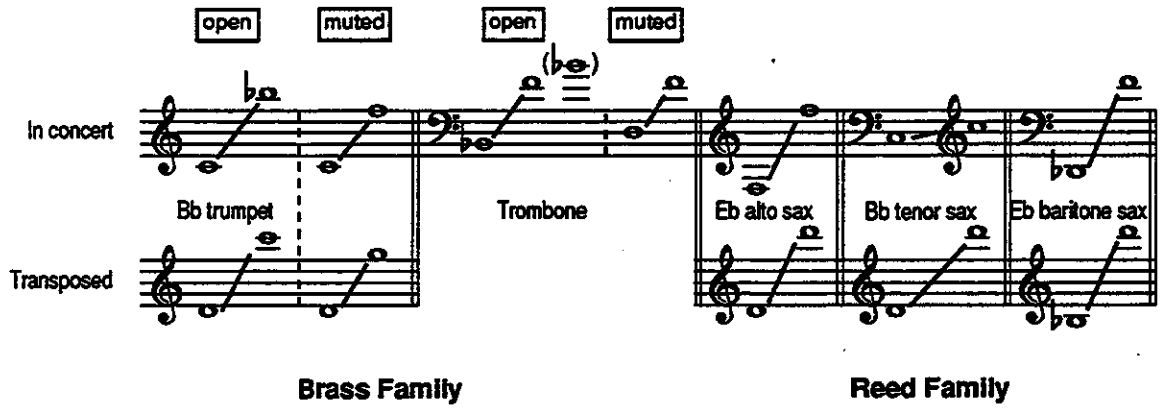
Players of all wind instruments need periods of rest during an arrangement. Brass players need more rest time than saxophonists. However, the overuse of any instrument or group (section) of instruments will result in a sound which is boring to the audience. Brass players can play longer without tiring in the instrument's middle register than in extreme areas.

Mutes should not be used at the extremes of the ranges of a brass instrument. Also, they add to the player's endurance problems.

Transposing instruments must have their music transposed appropriately in transposed scores and when their individual parts are copied from concert scores. Common choices of clef should be observed and followed.

Abridged Range Charts

Observe these limits when writing for this course. See complete range charts, earlier in this chapter, for more information.

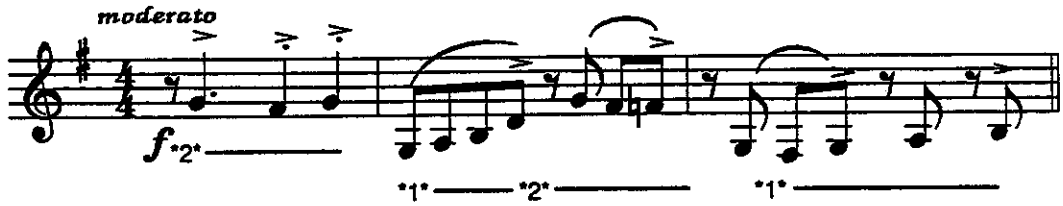


Brass Family **Reed Family**

CHAPTER TWO
HOMEWORK

A. The following phrases have been written for specific instruments. Analyze each phrase by writing in the appropriate area numbers as given in the range charts. Then indicate whether the phrase is in a "good" or "poor" register of the instrument for that particular circumstance.

Example:
Trumpet, transposed

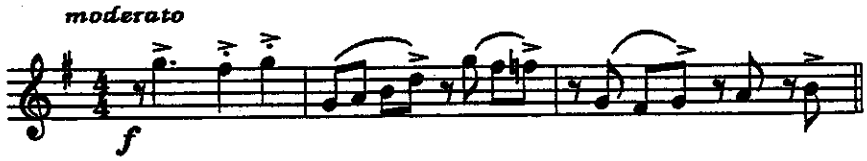


Good ☐ Poor ☒

If poor, why? TOO LOW FOR GOOD INTONATION AND FOR INDICATED DYNAMICS.

---

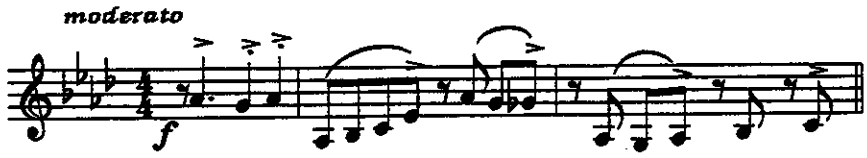
1. Trumpet, transposed



Good ☐ Poor ☐

If poor, why? _____

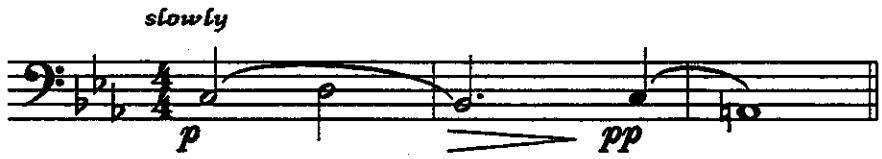
2. Alto sax, in concert



Good ☐ Poor ☐

If poor, why? _____

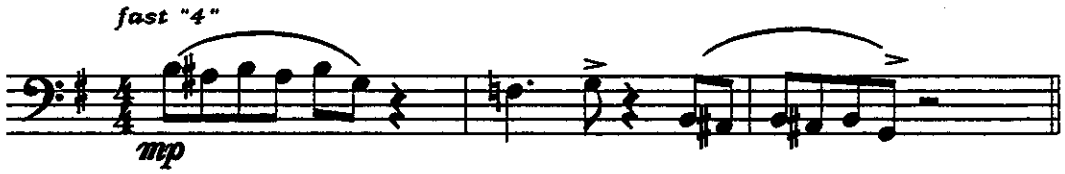
3. Tenor sax, in concert



Good ☐ Poor ☐

If poor, why? _____

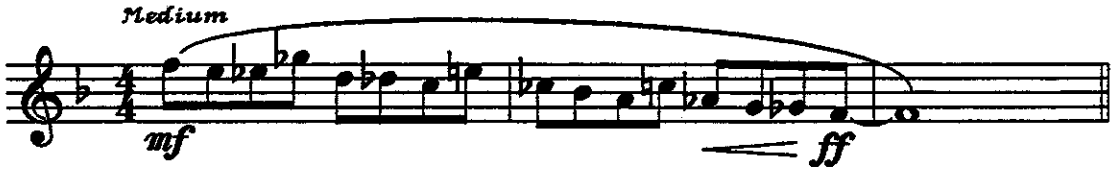
4. Trombone



Good ☐ Poor ☐

If poor, why? _____

5. Baritone sax, transposed

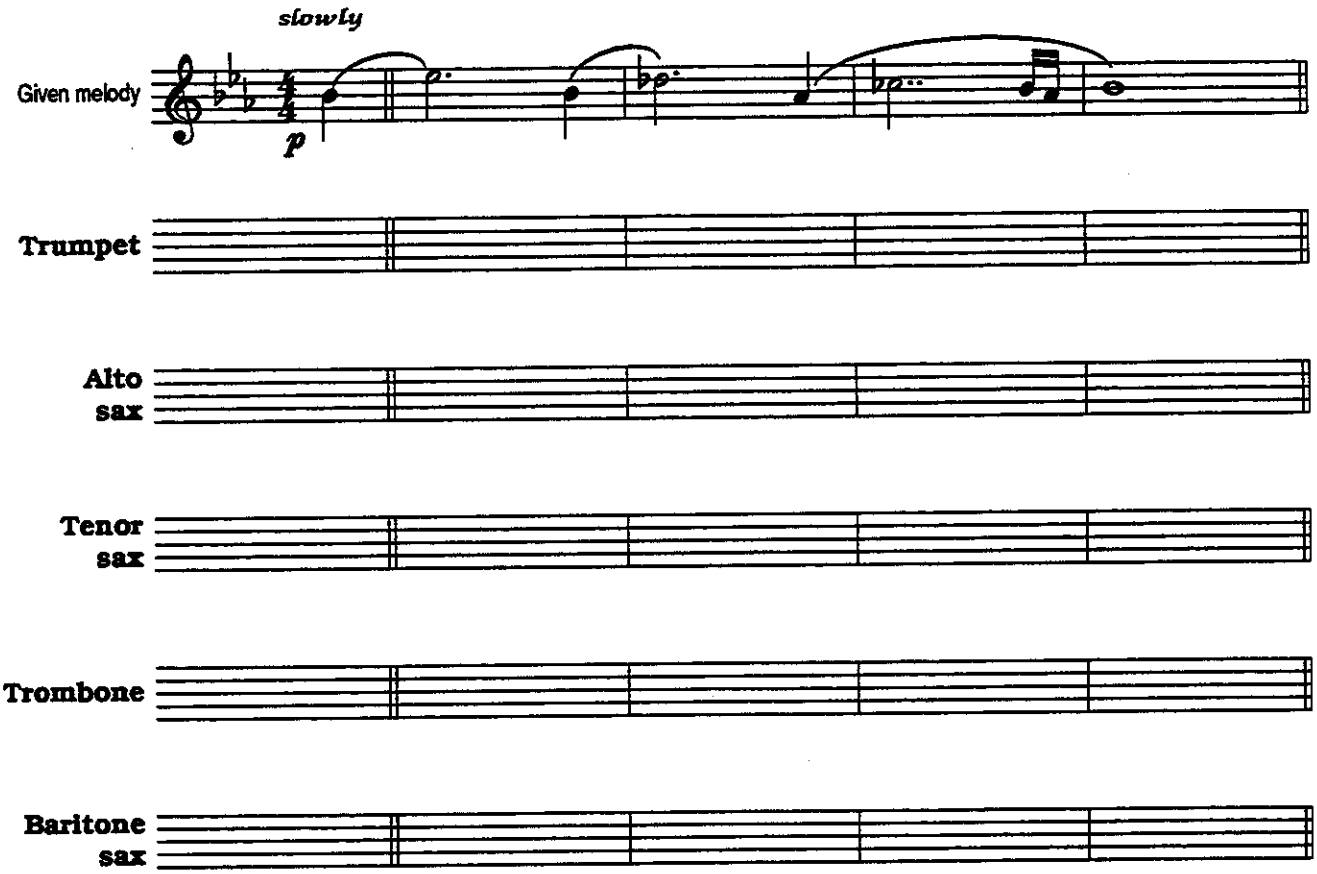


Good ☐ Poor ☐

If poor, why? _____

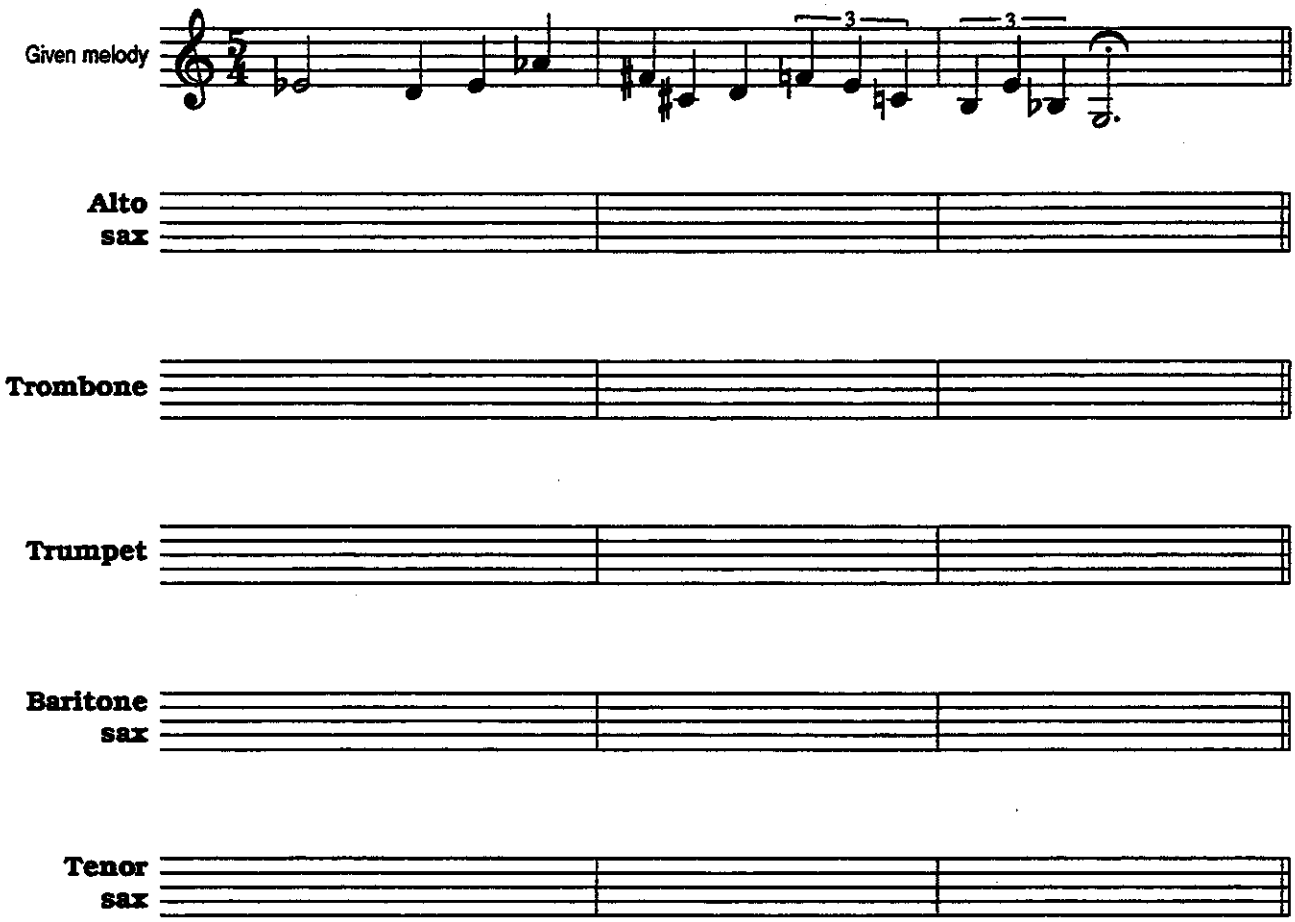
B. Write the following solo melody for each indicated instrument. Try to keep it in the given octave, but change octave if necessary for better playability.

Your writing may be in concert or appropriately transposed for the instrument. In each case (except for the trombone) indicate which you have done.



C. Analyze the work you did in section B by writing in the appropriate area numbers as given in the range charts.

D. Transpose the following melody for trumpet, alto sax, tenor sax and baritone sax. Write it in bass clef for trombone. In all cases keep the melody in the given octave.



CHAPTER THREE
SCORE LAYOUT

Although on some rare occasions an arranger may write directly onto parts, the normal procedure is to create a score. After the music is written onto score pages, each individual part is copied (extracted) from the score onto parts paper (manuscript) so that the arrangement may be performed.

Some of the advantages to writing a score are:

1. Complete voicings can be seen at a glance.
2. The flow of the arrangement is obvious.
3. Errors can be more easily spotted.
4. A score is necessary to efficient conducting.

Printers of music paper sell many types of score paper. Setups are available which will accommodate nearly every size and style of instrumentation.

There are score papers which come with instruments labeled in the left margin. Others have a combination of labeled and unlabeled lines, while some are totally without labels.

Closed Scores

The closed score layout uses relatively few staves compared to the number of parts written. An entire section or group of instruments may be represented on a single staff. Closed scores must be entirely in concert key (see Example I).

Ex.I

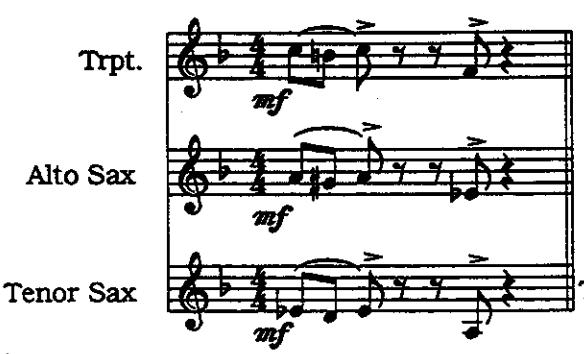
Although the closed score uses less paper and makes it fairly easy to write or analyze isolated voicings, there are serious drawbacks to this method. Having to crowd a number of voices onto one staff tends to make the arranger avoid musical ideas which would be difficult to notate. Passages involving many accidentals in under voices, voice crossing and counterpoint are a few of the musical devices which may be forsaken because of problems of notation within such confines.

Open Scores

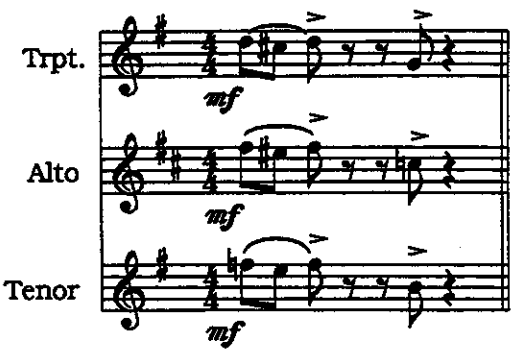
The open score layout allows maximum freedom to write accurately and without unnecessary restriction. Each individual part is usually assigned to its own staff (or staves) and can easily be viewed, analyzed or extracted.

Open scores may be written in concert or transposed. See examples II-a and II-b. (In the interest of saving space, the rhythm section has been omitted from these example.)

Ex. II-a
Open Score, in concert



Ex. II-b
Open Score, transposed



Concert Score vs. Transposed

Most professional arrangers write transposed scores. Writing transposed scores allows the arranger to see exactly where each note occurs on the instrument involved. In this way aspects such as timbre, technical facility, blendability and projection are immediately obvious to the experienced writer.

Since a copyist is not required to transpose as he/she extracts parts from a transposed score, the cost of copywork is less expensive and errors are not as likely to occur in the parts.

Instrumental Layout for Small Groups

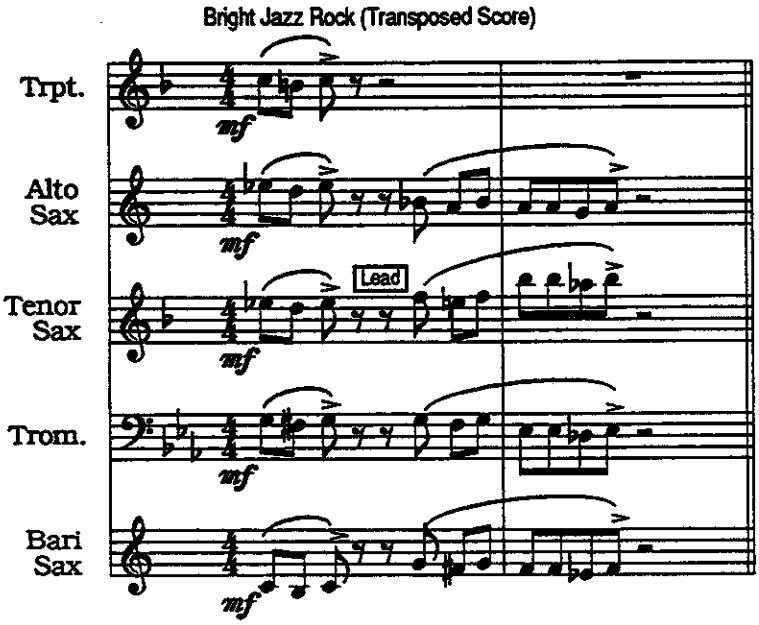
The term "layout" is used here in reference to the order in which the instruments are listed on the score page.

In small groups the instruments are normally listed from the highest (at the top) down to the lowest, without regard for instrumental family. The usual rhythm section setup goes at the bottom of the score page. The following are some common score layouts:

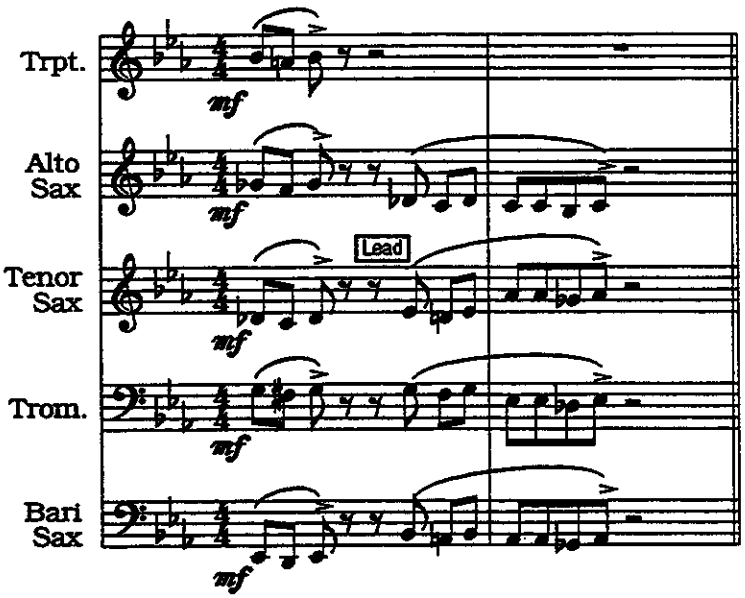
Trpt	Trpt	Trpt	Alto
Alto	Trpt	Alto	Tenor
Tenor	Trom	Keybd	Trom
Trom	Bari	Bass	Guit
Bari	Guit	Drms	Bass
Guit	Keybd		Drms
Keybd	Bass		
Bass	Drms		
Drms			

The top instrument often plays the lead in such combinations. However, note that when another voice in the section has the lead, all instruments remain assigned to their original staves. See Examples III-a and III-b.

Ex. III-a



Ex. III-b (Same example, in concert)



Big band and orchestral layouts are handled differently. They may be studied in other courses.

CHAPTER FOUR
SOLO, UNISON & OCTAVES

It is necessary to make the distinction between improvised solos and those which are to be played note for note from written music.

The competent improviser is capable of producing effects which would be difficult or impossible to accomplish if they were required to be read. A partial list of such effects includes extreme leaps, soft dynamics in areas that normally must be played loudly, and notes which are not within the instrument's standard range.

Therefore, the arranger must be careful to distinguish between what a performer is capable of doing while improvising and what that same performer can be expected to produce from a written part.

If a feeling of spontaneity is suitable, it is better to allow the soloist to improvise. If, on the other hand, a more controlled solo melody or counterline is preferable, there are certain factors to be considered by the arranger.

Most important among these factors are timbre, dynamics and specific range. The writer must decide what kind of sound will best suit the situation and how loud or soft that sound must be during a particular passage. As a result of those decisions the arranger will know which instruments could be considered for the solo and may then go on to choose the most appropriate one.

Working with a Given Key

When the key of a piece has been predetermined, the choice of which instrument is to play the melody may be restricted by the range of that melody. For instance, look at Example I.

Ex. I Concert Sketch

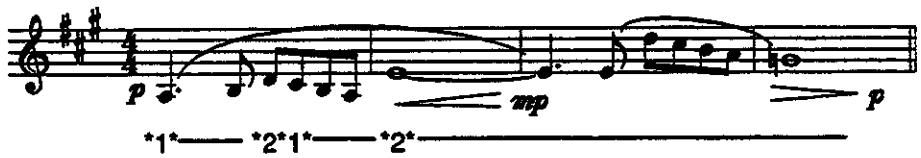
Assume that this is a sketch of an interlude in an arrangement of a ballad. It is to be played by one of the instruments with which we deal in this course, i.e., trumpet, alto sax, tenor sax, trombone or baritone sax. No mutes are to be used. Any octave is acceptable provided that the solo instrument maintains the given dynamics throughout.

Ex. II Trumpet

This example shows the given melody transposed for trumpet in the same octave as the sketch.

You c an see that even though all of the pitches are available, the suggested dynamics are not practical in the last two beats of the third bar. (The Range Chart shows the dynamic range of *4* as being *mf...ff* and of *5* as [*f...*] *ff.*) What happens if we still try to give the solo to the trumpet by taking it down an octave? See Example III.

Ex. III Trumpet

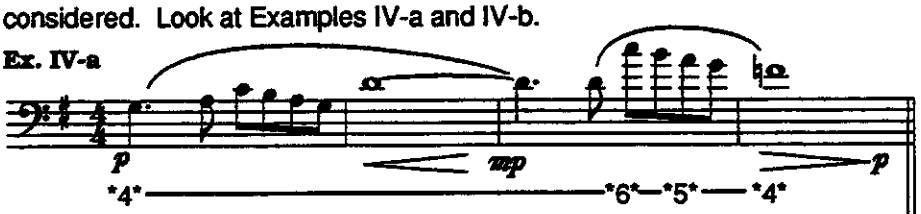


The problem of dynamics has been solved because both *1* and *2* can provide the necessary softness. However, the Range Chart shows that the tone quality and problems with intonation in *1* and in the bottom three semitones of *2* make the first two and a half bars of Ex. III unsuitable for this situation.

Therefore, the trumpet should not be used for this solo.

If the sound of brass still seems to be desirable, the trombone can be considered. Look at Examples IV-a and IV-b.

Ex. IV-a



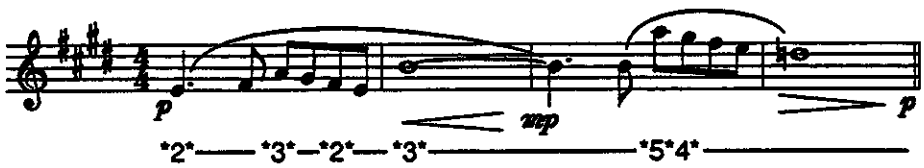
Ex. IV-b

Referring to the trombone Range Chart and applying the same type of analysis as was done with the trumpet, you will find that in Ex. IV-a dynamics and other difficulties connected with *6* disqualify this solution. In IV-b, dynamics are fine, but problems of tone-centering and long positions in *2* and at the bottom end of *3* suggest that the trombone should not play this line.

Now consider which of the saxes may solve the problem.

Because of the range of this melodic fragment, none of the saxophones can perform it in more than one octave. Example V shows the phrase transposed for alto or bari sax.

Ex. V Alto or Bari Sax



The Range Charts for these two saxes indicate that either instrument is capable of playing the melody in the given key and with the suggested dynamics. Now it becomes necessary for the arranger to decide if either sound is appropriate to the situation.

Another factor to be considered is whether or not tradition or current trends ought to be taken into account. The alto sax's Range Chart does explain that *2* is rarely used for written solos. The baritone sax's lower register is equally uncommon as a stater of soft melodies. However, neither instrument is forced out of contention.

Let's explore the last possibility, the tenor sax. See Example VI.

Ex. VI. Tenor Sax

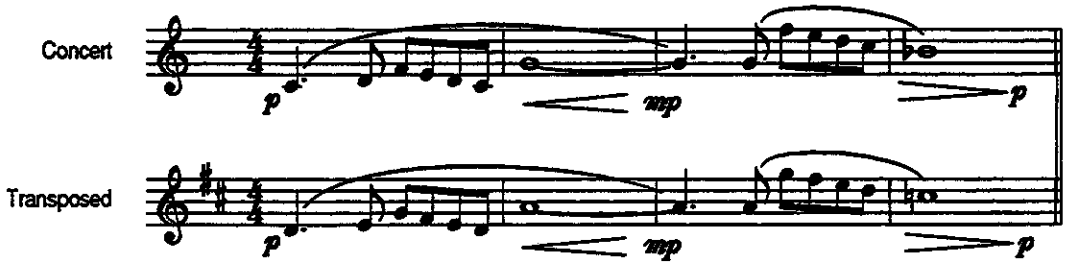
Here the music has been transposed for the tenor. It utilizes *3*, *4* and *5*, all of which are described as just about ideal for the case at hand. The only drawback would seem to be the warning that intonation may sometimes be a problem for the top couple of semitones in *5*.

The results of our research show that neither of the two brass instruments can fulfill this particular assignment and that any of the three saxes can.

Choosing the Key

When the arranger has the opportunity to set or change the key of a piece of music, he/she may also have more freedom in determining instrumentation. Look at Example VII.

Ex. VII Trumpet

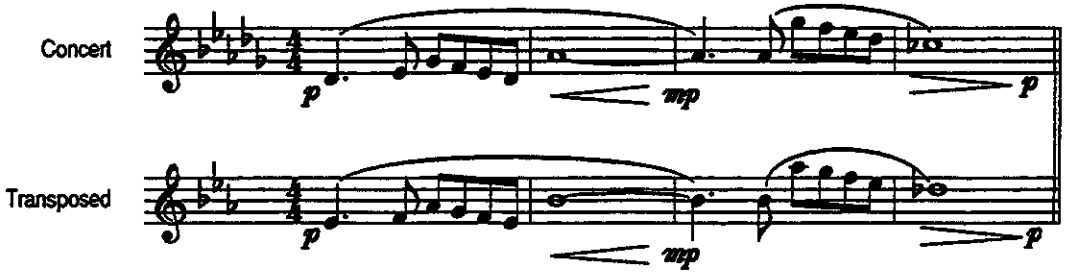


Assume that the arranger really wanted this solo to be played on trumpet and that it was possible to change the key of the piece from G concert to C.

Note that everything works out very well with the exception of a possible intonation problem on the trumpet's low D.

Another solution would be to put the piece a semitone higher. See Example VIII.

Ex. VIII Trumpet



In this case the bottom note presents no problems but the top note may be difficult to produce at *mp*. The arranger who wants or needs the trumpet to play this solo will have to decide which of the two risks is safer.

The same type of consideration can be given to any instrument or group of instruments when freedom to determine keys is available.

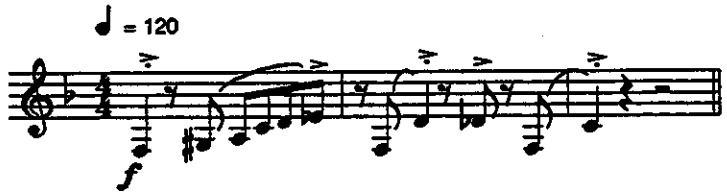
Unison Unison combinations (and octaves, which will be covered later) are very common in bands which play contemporary pop music or jazz.

Arranging a musical passage for two or more instruments in prime unison is a useful way to present a melody clearly. The instruments involved may be identical, e.g., three trombones, or different, e.g., one trumpet and one alto sax.

Prime unison combinations may be created for phrases containing any dynamic levels, provided that proper instrumentation is employed.

In the case of dissimilar instruments, care must be taken to arrange them in such a way that their abilities to blend and to project are compatible. Look at Example IX.

Ex. IX Concert Sketch



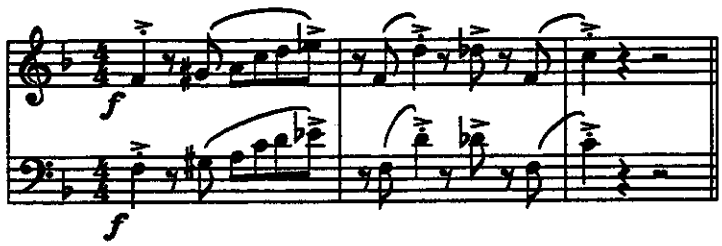
Using the information supplied in the Range Charts for the five instruments covered by this course, you will find that only the trumpet would be unfit to play the line as it appears in this octave. Therefore, this phrase can be scored in prime unison for any combination of two or more of the other instruments: alto sax, tenor sax, trombone and baritone sax.

All of the information given earlier in regard to the importance of key should be kept in mind in every arranging situation. Each instrumental part must be playable with relative comfort whether it is a solo or a line which is combined with other instruments in unison, octaves or in harmony.

Octaves Scoring a passage in octaves, with two or more instruments, is another valuable way to state a melodic line. As with unison combinations, any dynamic range can be workable if the proper instrumentation is chosen.

It goes without saying that the musical idea itself, before it is arranged, must be playable by at least some of the available instruments. See Example X.

Ex. X. Concert Sketch

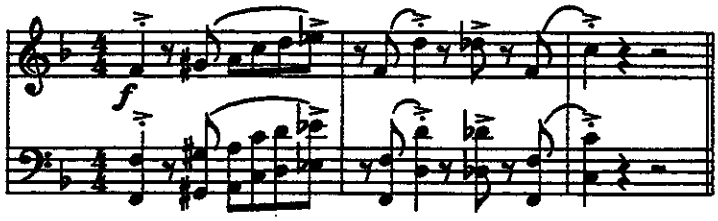


In this concert sketch, the line originally shown in Example IX has been rewritten by adding the melody an octave higher than the original.

Now the trumpet can participate because of the inclusion of the upper octave. Also, the alto sax could play the upper line, with the lower octave being left to one or more of the other instruments.

The last practical alternative in this exploration of octave combinations is shown in Example XI.

Ex. XI Concert Sketch



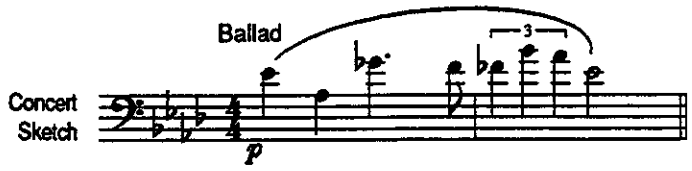
This sketch asks for the figure to be played in three octaves, which will result in the widest sound available so far. Although both the trombone and the baritone sax are capable of producing the pitches given in the bottom octave, this particular passage is not practical for the trombone in that octave. So the combinations that are available for arranging the passage according to this sketch are:

Top octave.....trumpet &/or alto sax
Middle octave.....alto sax &/or tenor sax &/or trombone
Bottom octave.....bari sax

Remember that this sketch could be scored for as few as three wind instruments.

CHAPTER FOUR
HOMEWORK

A.



1. Which instruments are capable of playing this melody comfortably in the given octave and at the given dynamic level?

trumpet alto sax tenor sax trombone baritone sax

2. Which additional instrument(s) would be capable of playing the melody comfortably, as given, if the dynamic level were raised to *f* ?

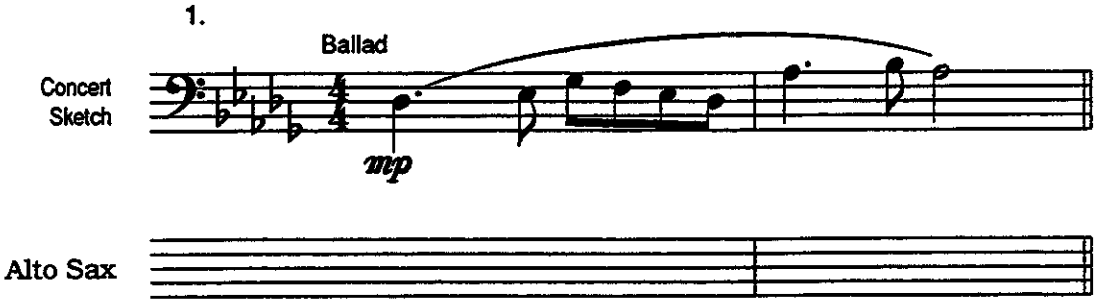
trumpet alto sax tenor sax trombone baritone sax

3. Which instrument is incapable of playing the melody, as given, without going out of its normal range?

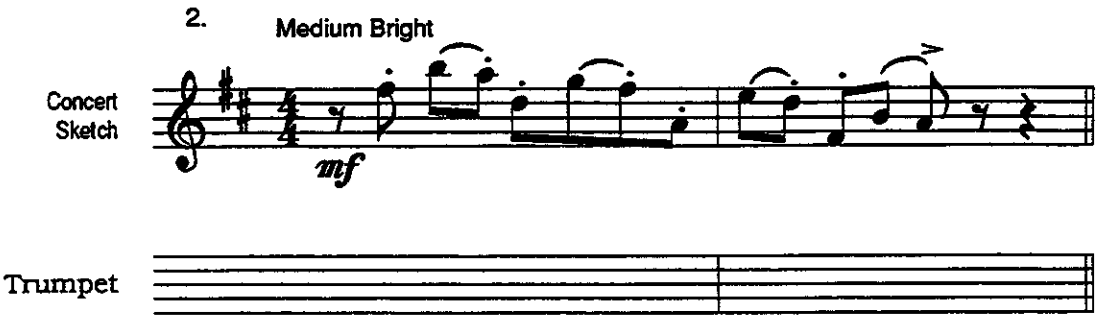
trumpet alto sax tenor sax trombone baritone sax

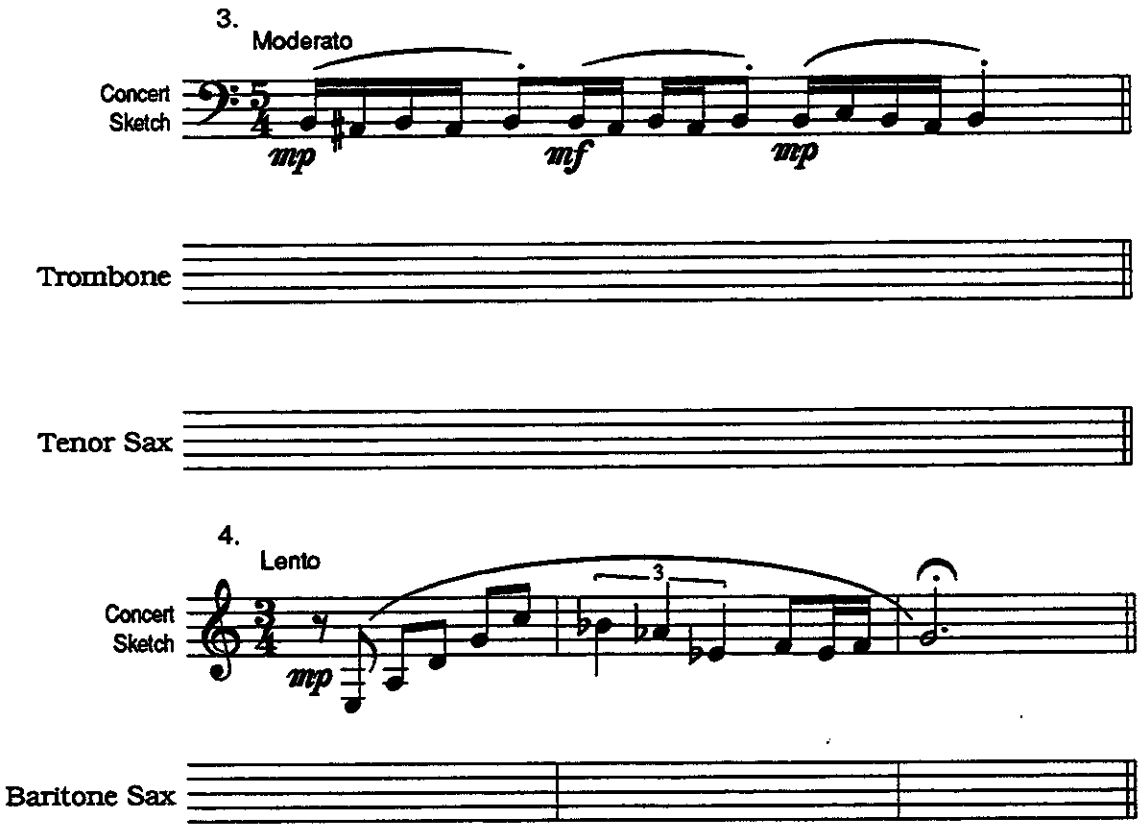
B. In each example given below, choose a more appropriate key in which the indicated instrument might play the given melody. Then write the part, in the new key, for that instrument. You may work in concert or transposed. Stay as close as possible to the register which is suggested by the sketch.

1.

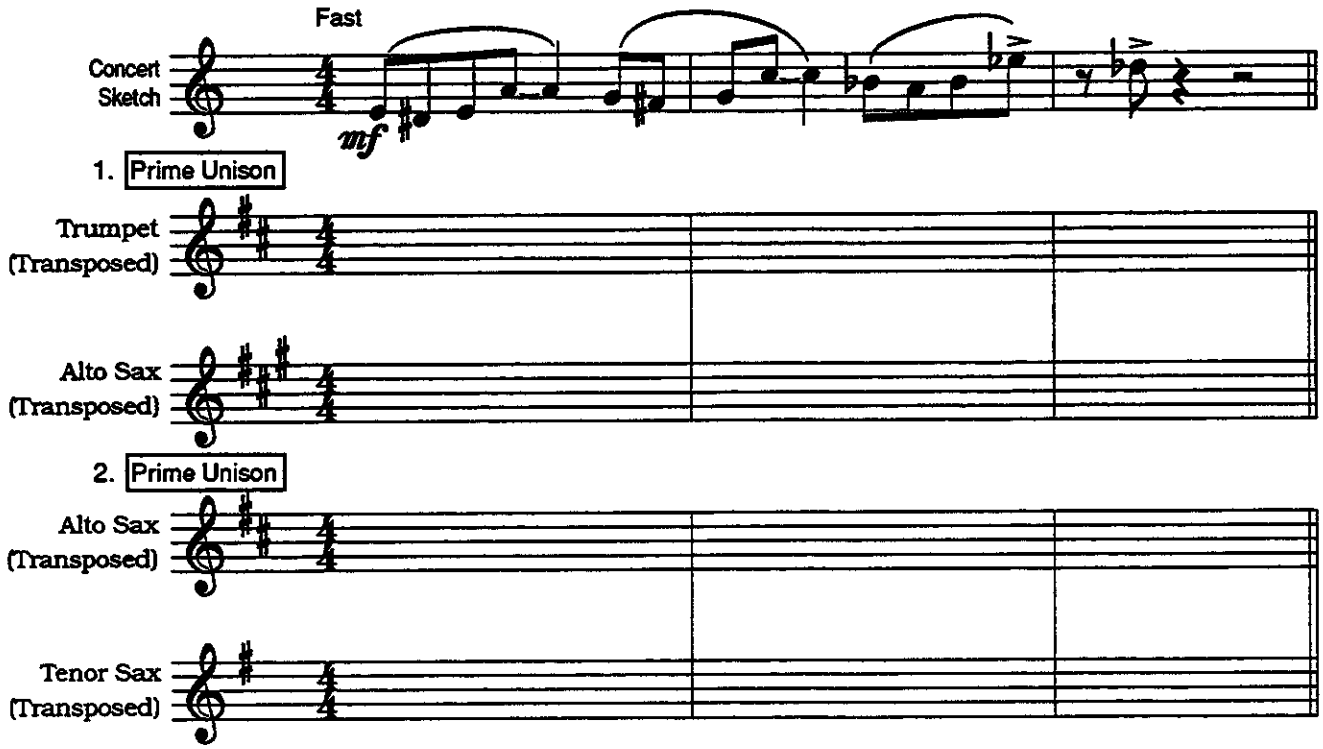


2.





C. Arrange the following passage for the instrumentations and in the voicings and keys indicated at each number below (continues on next page).



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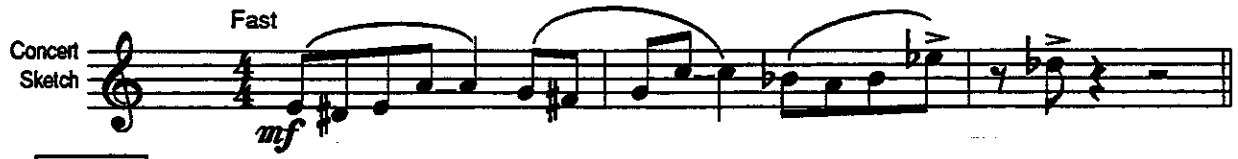
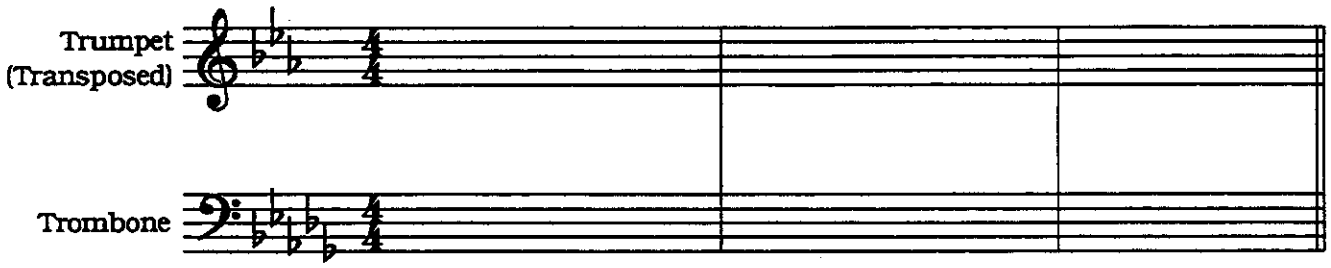
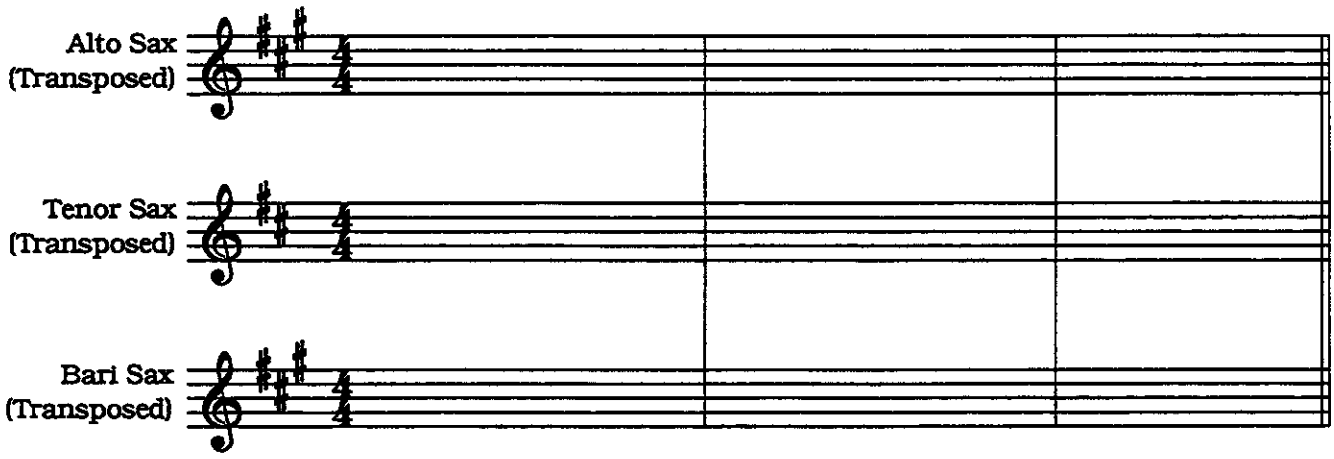


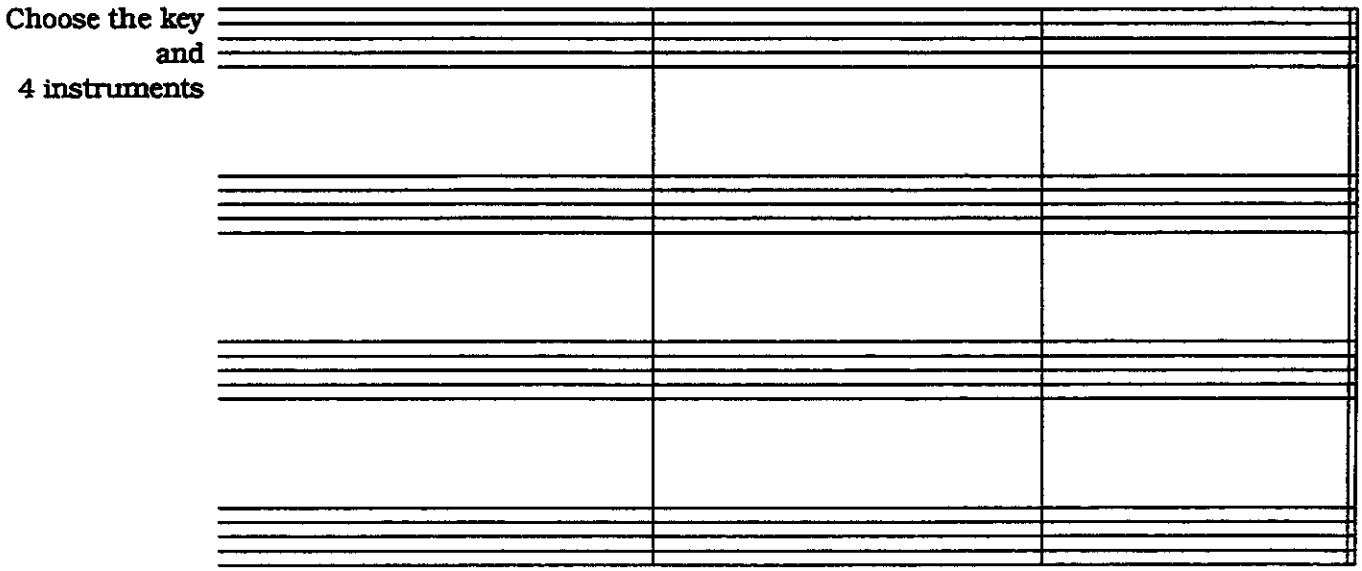
3. Octaves



4. 3 Octaves



5. 2 Octaves Only

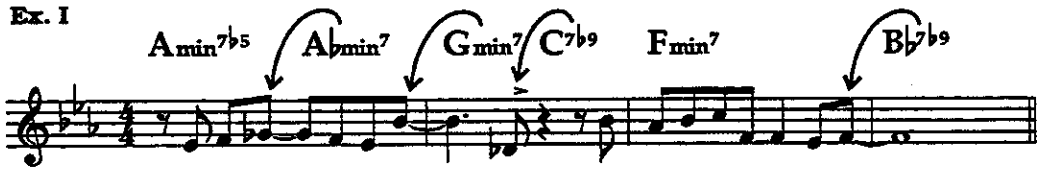


CHAPTER FIVE

HARMONIZATION OF ANTICIPATIONS

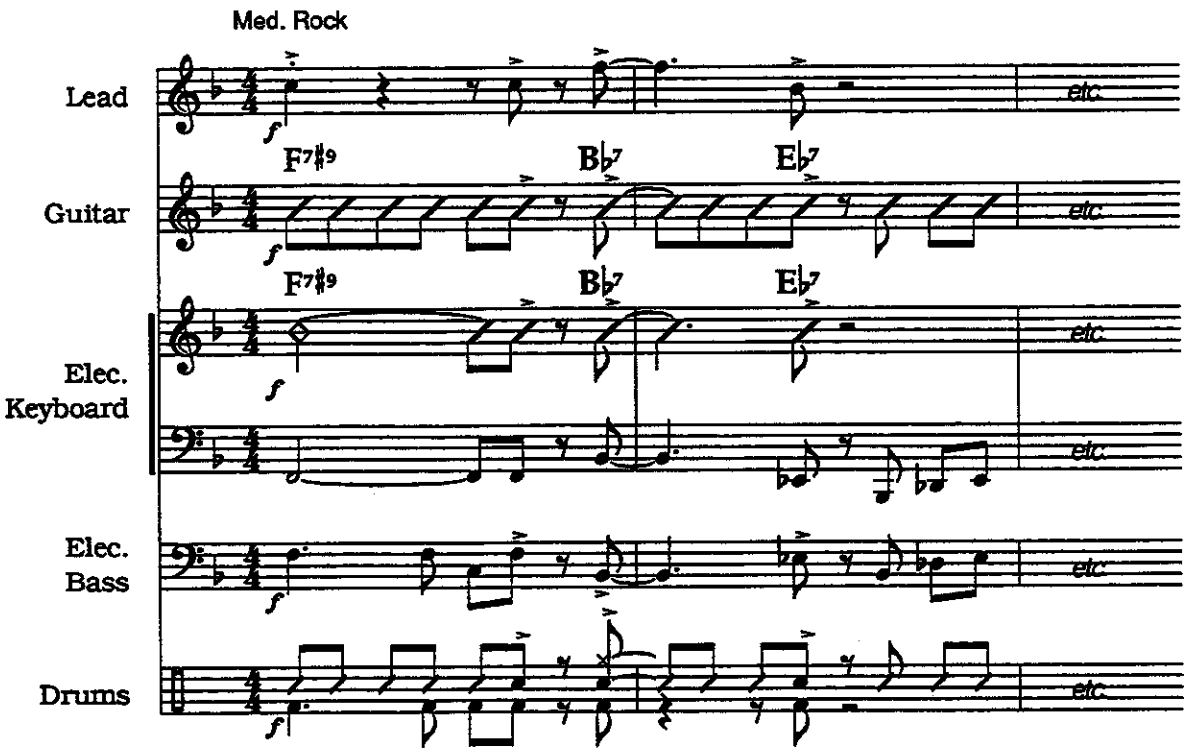
Any anticipation, occurring in a soli or in a background, must be harmonized with the chord of the next beat whether that note stands alone or is tied to the following note. See Example I.

Ex. I



When a harmonic anticipation is strongly accented, it may be supported in the rhythm section. See Example II.

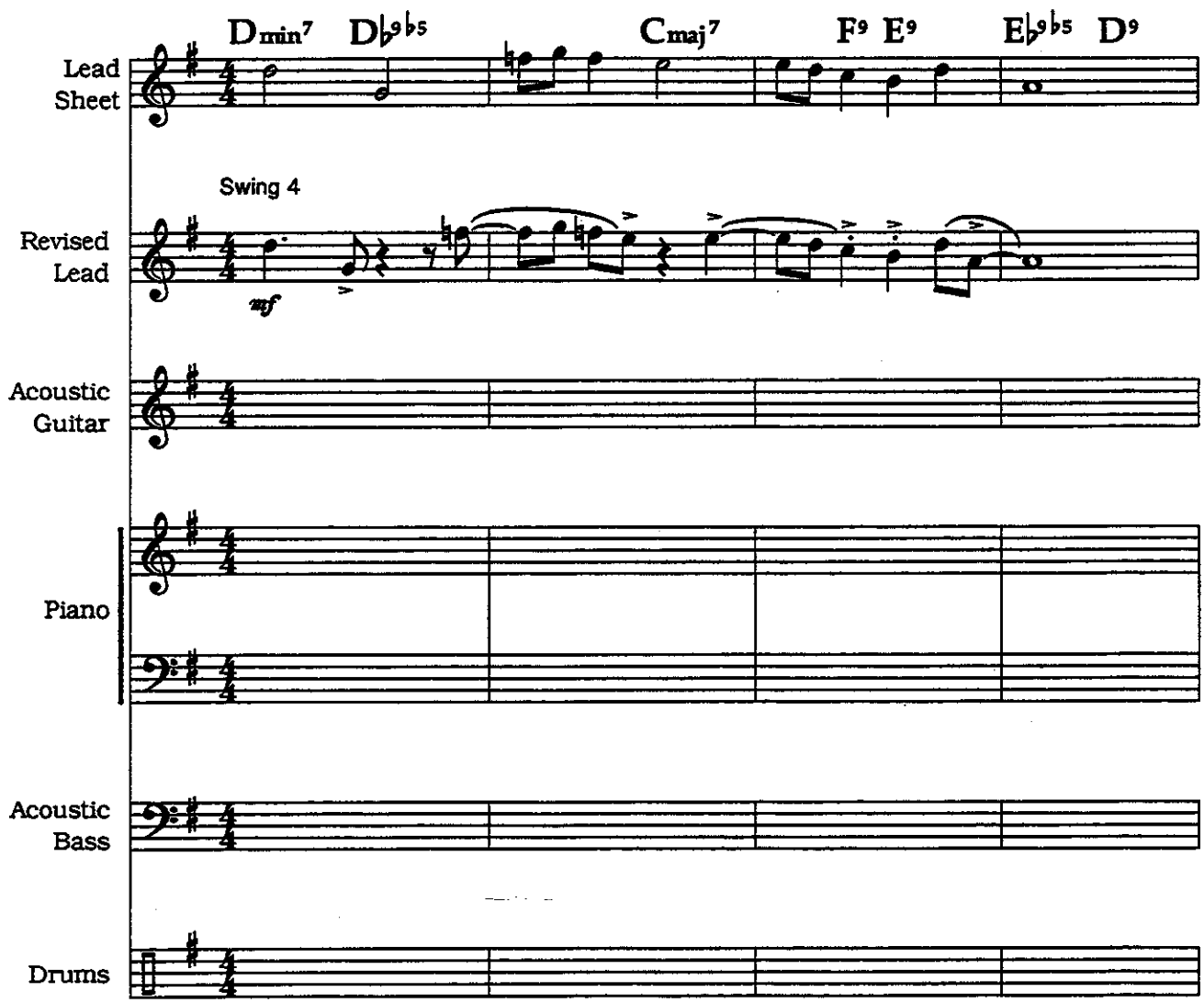
Ex. II

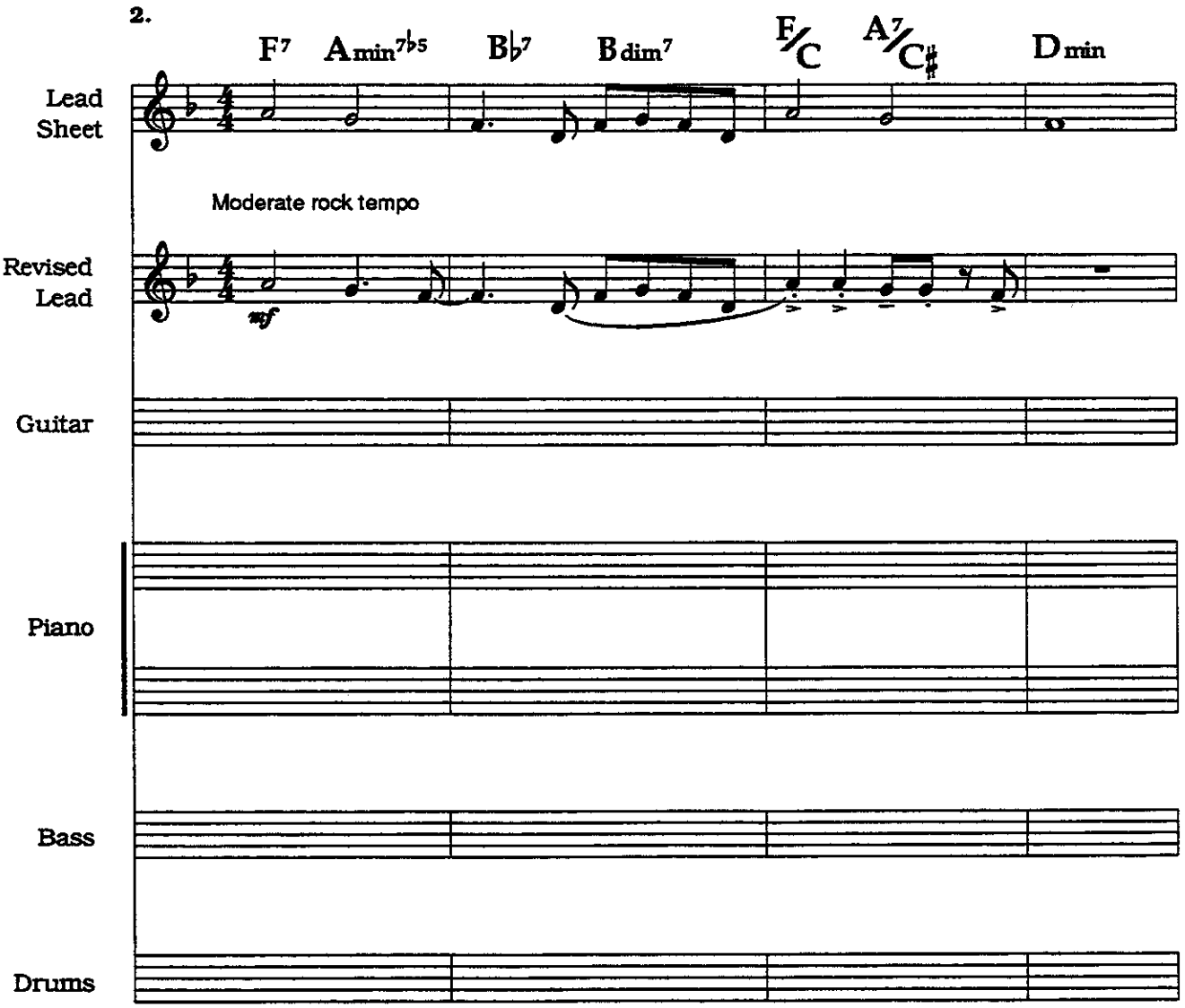


CHAPTER FIVE
HOMEWORK

In the following exercises, write stylistically appropriate rhythm section parts to accompany the revised leads. Catch every harmonic anticipation. Assume that each piece continues past the four bars you are writing.

1.




2.
F7
Amin7♭5
B♭7
Bdim7
F/C
A7/C♯
Dmin
Lead Sheet
Moderate rock tempo
Revised Lead
mf
Guitar
Piano
Bass
Drums

CHAPTER SIX
TWO-PART SOLI

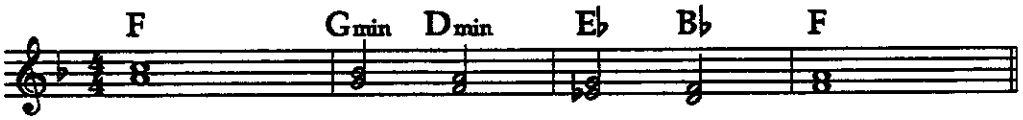
When two or more instruments play a melodic passage together, in the same rhythm, they are said to be "playing soli" or "playing a soli." (This discussion will not concern itself with contrapuntal writing.)

For the purposes of this course, assume that no harmony note will be voiced above (pitched higher than) the lead.

Thirds & Sixths Harmonizing melody notes with intervals of 3rds or 6ths is common in virtually all styles of music.

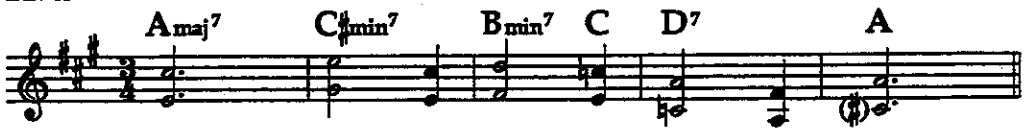
Two-part writing in 3rds is very simple. Merely determine all chord tones which apply to the harmonic situation. If one of them occurs a major or minor 3rd below the lead, give that harmony note to the lower voice. See Example I.

Ex. I



Writing in 6ths involves the same type of process. Find a chord tone which occurs a major or minor 6th below the melody note and give that harmony note to the lower voice. See Example II.

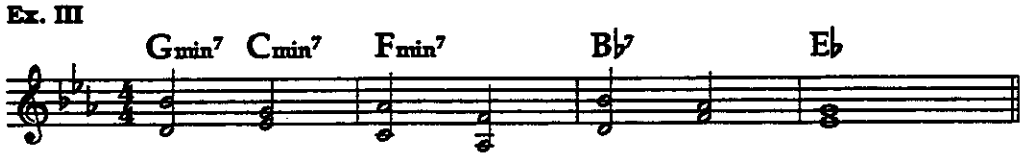
Ex. II



Inasmuch as 3rds and 6ths are inversions of each other, it follows that their harmonic textures are similar and compatible. Therefore, it is possible to intermix 3rds and 6ths within a passage while maintaining consistency of sound.

Analyze each melody note of Example III to determine whether its harmony note was assigned out of necessity (the inverted interval is not a chord tone) or by choice.

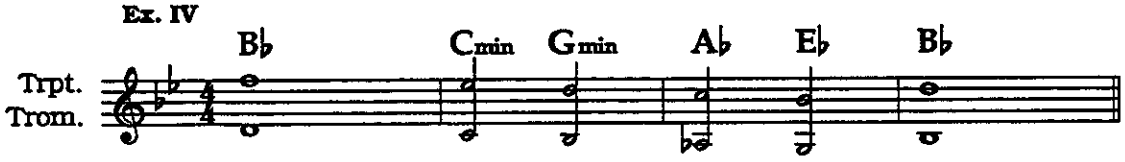
Ex. III



You should find that four of the harmonizations were done by choice and that three had no alternatives. When choices are available, use them to create the most musical line for the under voice.

If the ranges of the two instruments permit or necessitate it, 10ths may be used in place of consecutive 3rds. Care must be taken to ensure that the bottom voice avoids getting low enough to sound "muddy." See Example IV (next page).

Ex. IV

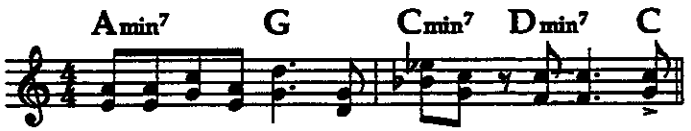


Fourths & Fifths Perfect 4ths and perfect 5ths, inversions of each other, convey a different harmonic quality from that of 3rds and 6ths. (The augmented 4th and the diminished 5th, each also known as the *tritone*, will be discussed later.)

Two-part writing in 4ths and/or 5ths is one of the scoring devices used in jazz and rock. However, this particular sound is not common in small band arrangements of the more conservative styles of music.

The voicing technique is similar to what has already been discussed. Find a chord tone which occurs at the desired interval below the melody note and give that tone to the under voice. (Note: The preceding sentence may be considered a general rule for two-part soli writing.) Alternation between acceptable 4ths and 5ths may be done freely. See Example V.

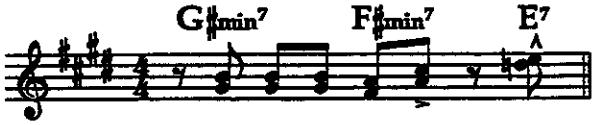
Ex. V



Sevenths & Seconds These intervals, inversions of each other, are rarely used consecutively to harmonize a passage.

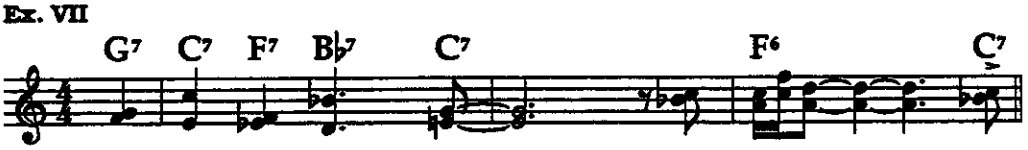
Seconds, usually major, may be used on isolated accented notes of short duration to give a contrasting "punch" to whatever precedes or follows them. See Example VI.

Ex. VI



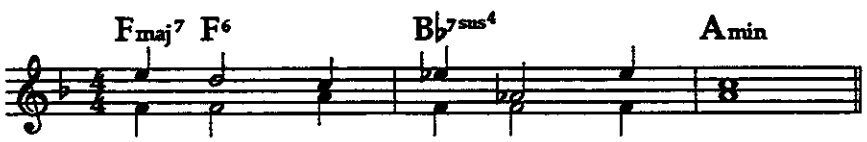
Major 2nds are best used to harmonize normal melody notes when the interval following the 2nd is the result of contrary or oblique motion. See Example VII.

Ex. VII



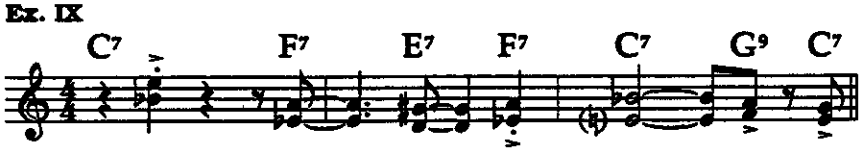
Minor 2nds should be avoided by the inexperienced arranger. Major and minor 7ths are also rare. When used, they are most often involved in oblique and contrary motion. See Example VIII.

Ex. VIII



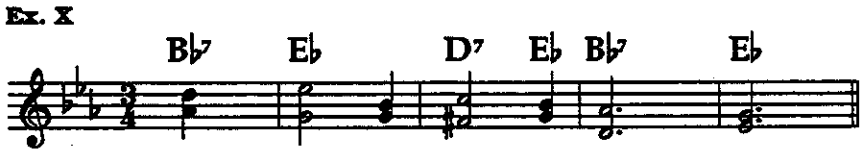
Tritones Augmented 4ths and diminished 5ths are often used in jazz and rock writing when the 3rd or the 7th of a dominant 7th chord is in the lead. See Example IX.

Ex. IX



In more conservative musical styles, tritones normally resolve stepwise, in contrary motion. See Example X.

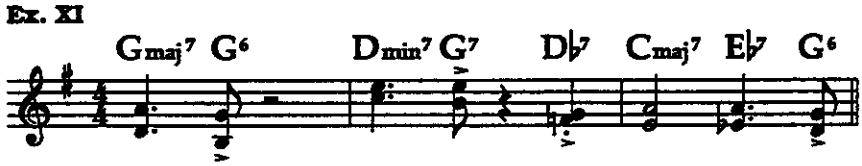
Ex. X



Melodic Tensions All of the examples given so far in this chapter have utilized chord tones in the lead. Harmonization of melodic tensions is accomplished by the same methods.

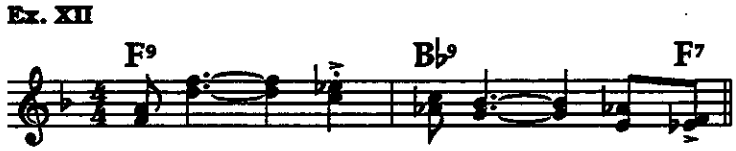
When the lead note is a melodic tension, find a chord tone at an appropriate interval below the lead and give that note to the second voice. See Example XI.

Ex. XI



Harmonic Tensions Harmonic tensions may be used in the second voice when they are stylistically appropriate. These harmony notes should be carefully chosen to produce a good sound and must not be used arbitrarily. See Example XII.

Ex. XII

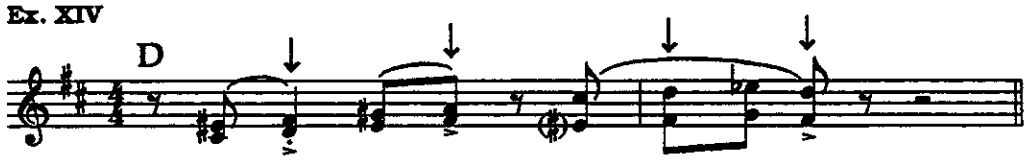


Approach Techniques Approach techniques are used in order to give more interesting lines to under voices. Melodic target notes which are approached scalewise may have their harmony notes approached scalewise. See Example XIII.

Ex. XIII (Arrows indicate targets)

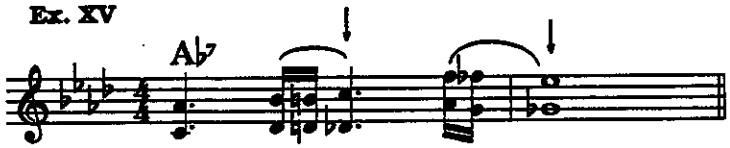
Melodic target notes which are approached chromatically may have their harmony notes approached chromatically. See Example XIV.

Ex. XIV



Double chromatic approaches may be similarly harmonized. See Example XV.

Ex. XV



The above examples show that approaches may move upward or downward into their targets. Also note that target notes may be harmonized with any appropriate interval.

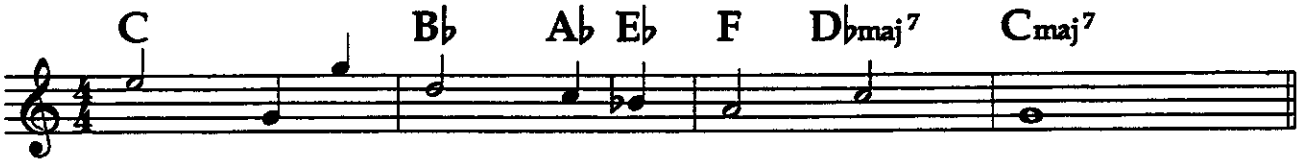
Note: In all of the above situations, harmonize the target note first; then harmonize approach notes. This clearly establishes the destination of the under voice.

CHAPTER SIX
HOMEWORK

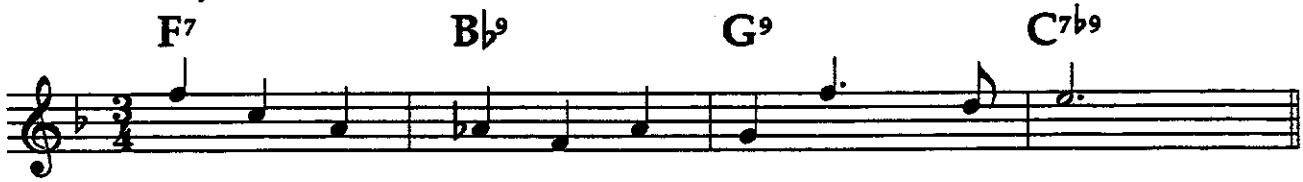
A. Using chord tones only, write harmony parts for the following melodies, using the indicated intervals.

Example:
Use 3rds only

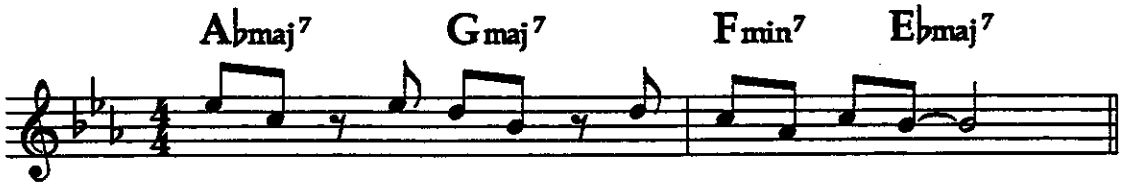
1. Use 3rds only.



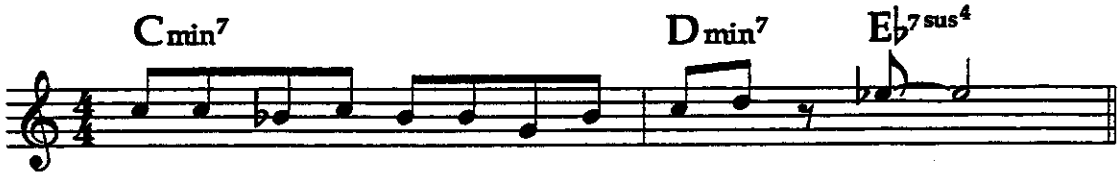
2. Use 6ths only.



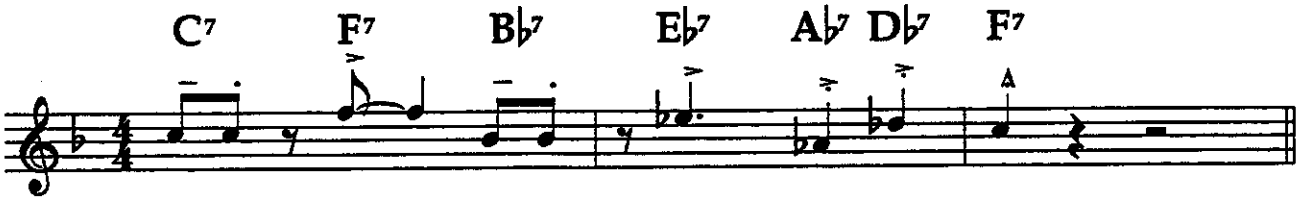
3. Mix 3rds and 6ths. Be sure to use both.



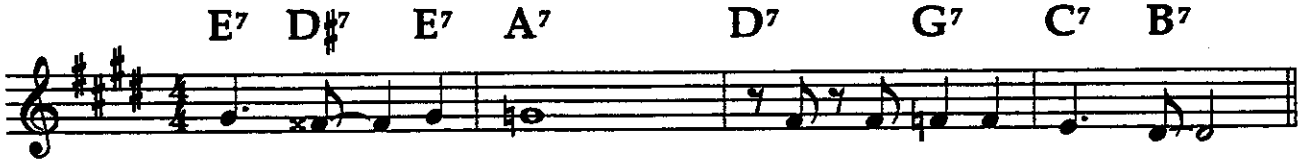
4. Mix perfect 4ths and 5ths. Be sure to use both.



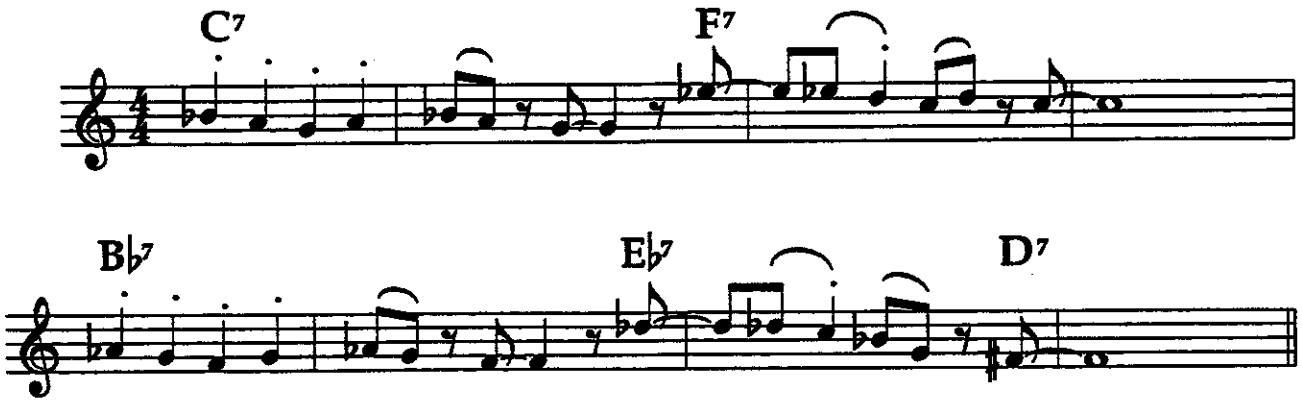
5. Mix 6ths and major 2nds. (Think *music*!)



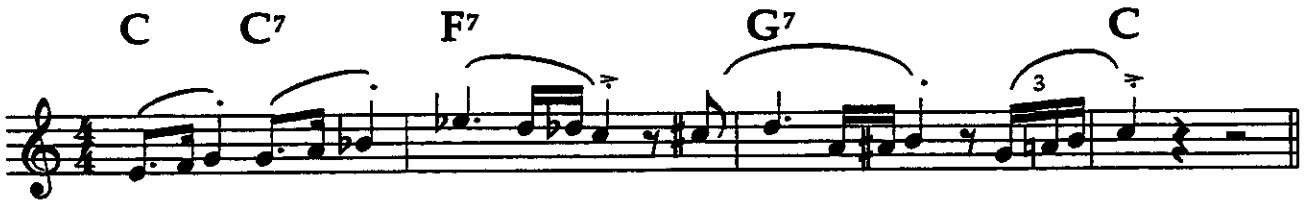
6. Use tritones only.



B. Using chord tones and harmonic tensions, write a harmony part to go with this melody. Choose your own intervals. Use harmonic tensions at least four times and identify them.



C. Write a harmony part to go with this melody. Use approach techniques *wherever possible* and identify them. Choose your own intervals.



CHAPTER SEVEN
FOUR-PART SOLI

This chapter will deal extensively with standard voicing techniques. These are tools which are utilized by virtually every professional arranger in order to create certain musical sounds easily and efficiently.

Used in this context, the term "standard" defines processes which may be employed with consistent results by anyone schooled in their use.

Although standard techniques are available to everyone, the results to which they contribute will be as individual as the arranger's imagination. These devices are also the basis for forming some of the more sophisticated sounds which are part of every arranger's repertoire.

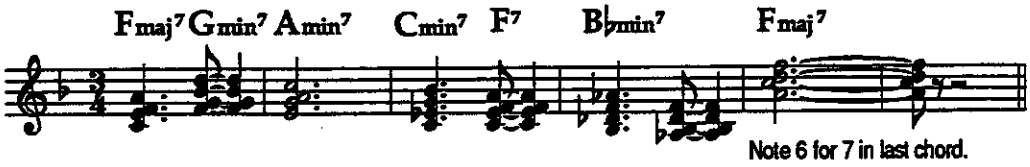
When deciding which voicing method to apply, two things to consider are the instrumentation to be used and the range of the melody. In order to maintain proper balance and playability, careful attention must be given to the instruments' characteristics, as explained in the chapter on Instrumentation.

Four Way Close

A four way close voicing contains four different pitches within an interval smaller than an octave. The four pitches may all be chord tones or a combination of chord tones and tensions.

With a CHORD TONE IN THE LEAD the arranger may choose a "pure" voicing. This is accomplished by assigning only chord tones to the under voices, just as they occur beneath the melody note. (As it is usually better to avoid creating the interval of a minor 2nd between the top two voices, substitute 6 for 7 in a major 7th chord with 1 in the lead.) See Example I.

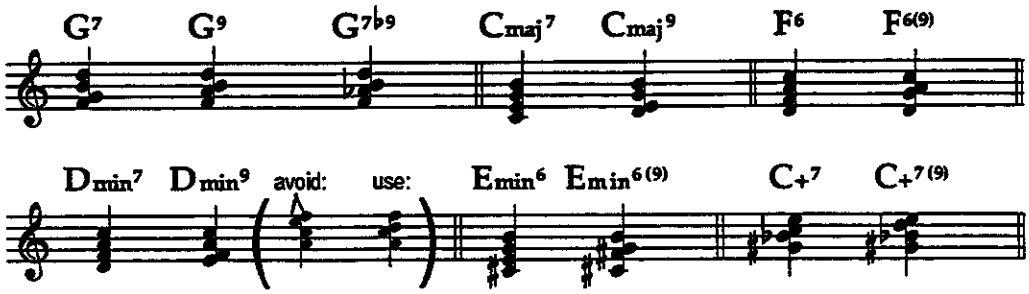
Ex. I



When the situation calls for richer sounds, 9 may be substituted for 1 in the voicing, according to the following list. See Example II.

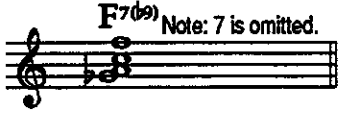
a. 9 for 1 or flat 9 for 1 in dominant 7th chords
b. 9 for 1 in the following:
major 7th chords
major 6th chords
minor 7th chords
minor 6th chords
augmented 7th chords

Ex. II



Special case: When 1 is in the lead of a dominant 7th flat 9 chord, use the voicing shown in Example III.

Ex. III



With a MELODIC TENSION in the lead, the voicing may be accomplished by skipping the chord tone which occurs immediately below the lead and assigning the next three chord tones to the remaining instruments. Another way of stating this principle is:

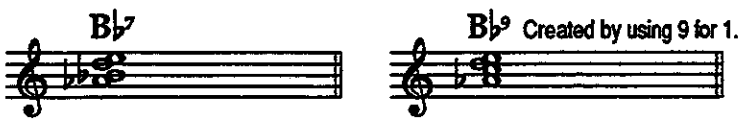
Voice a MELODIC TENSION as though it were the next lower chord tone. See Example IV.

Ex. IV

Important: when 9 (natural or altered) appears in the chord symbol, the root is usually omitted from the voicing when using techniques shown in this chapter.

Special case: when #11 is in the lead of a dominant 7th chord, it may be harmonized as though it were 5 of the chord. This is to provide for the inclusion of 3 of the chord in the voicing. See Example V.

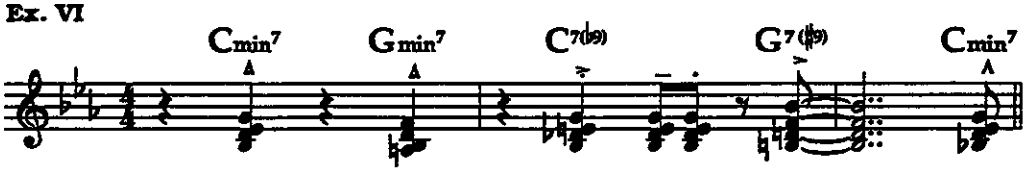
Ex. V.



When HARMONIC TENSIONS are employed in voicings, they must be handled very carefully. Many arrangers mistakenly believe that the quality of their work rises in proportion to the number of tensions they include in their voicings. The fact is that the overuse of tensions obscures the harmonic scheme (progression) of the music.

The use of harmonic tensions in voicings is especially effective when melody notes are rhythmically isolated and/or sustained and/or heavily accented. See Example VI.

Ex. VI

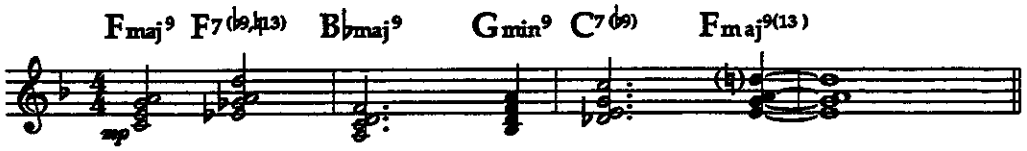


One or more harmonic tensions may be present in a given chord symbol. Otherwise, and if suitable, they may be added at the careful discretion of the arranger.

It is unusual to find a circumstance in which it is harmonically logical and artistically valid to employ more than one harmonic tension in a four-way voicing.

Example VII (next page) shows a melody with a chord progression which stipulates the use of tensions. The alert student will discover that a tension is sometimes present in a chord symbol only to accommodate a melodic tension in the lead. In other cases a tension does not reflect the melody note, but shows the degree of richness which is desired in the voicing.

Ex. VII



Students are advised to put much effort into pursuing their studies in the areas of harmony and ear training in order to improve and nourish their ability to utilize harmonic tensions in an artistic manner.

Flat 9 Interval It is strongly advised that students avoid creating the flat 9 interval (minor 9th) between any two parts in a voicing. (The exception, which will not occur in any voicings discussed in this chapter, applies to the V7 (b9) chord in root position.) See Example VIII.

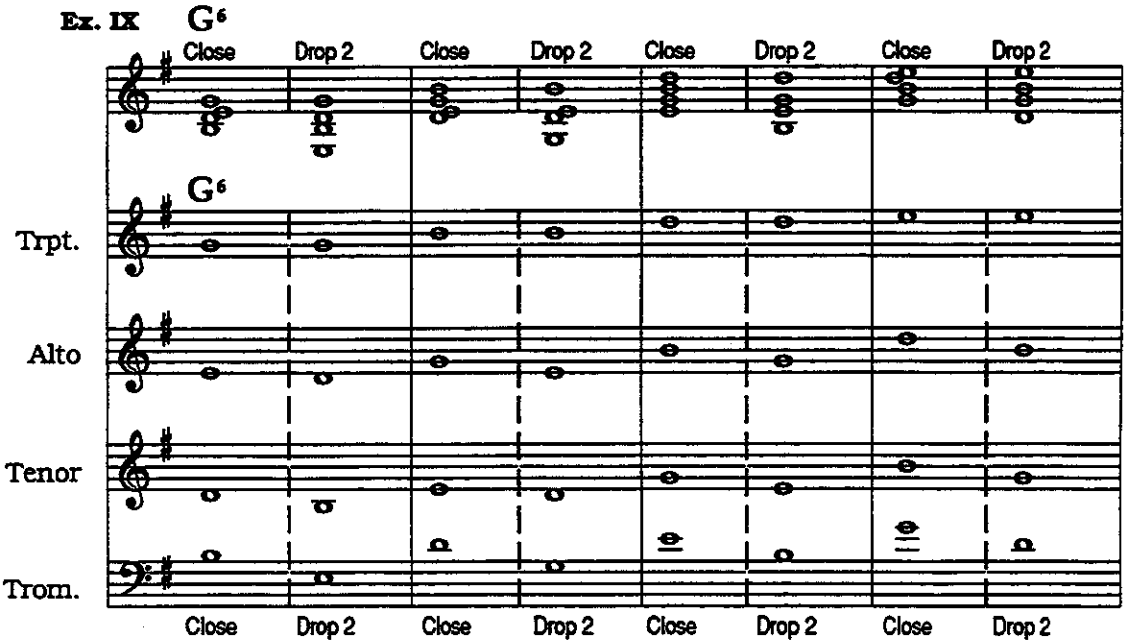
Ex. VIII

The internal flat 9 interval produces a generally harsh sound which is incompatible with most musical situations.

Drop 2 Drop 2 is a device which enables the arranger to produce a somewhat broader (more open) sound than four way close. The reason is that the interval between the lead and the bottom voice will always be larger than an octave. Therefore, drop 2 is known as an "open" voicing. Other open voicing techniques, which will be discussed later, are "drop 3" and "drop 2 and 4."
Open voicings may consist of all chord tones or they may contain appropriate tensions.

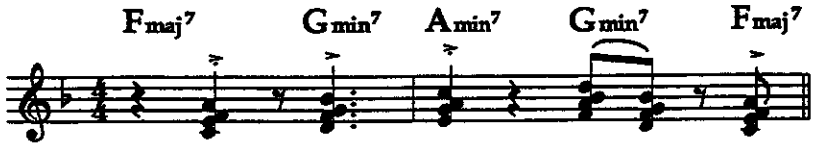
The first step in creating a drop 2 voicing is to determine what note would have been assigned to the second voice in 4 way close. Then, instead of giving that note to the second voice, drop it an octave and assign it to the bottom voice. Finally, without making any other octave adjustments, give the remaining two notes to the second and third voices. The instructions may seem complicated, but the process is simple. See Example IX.

Ex. IX

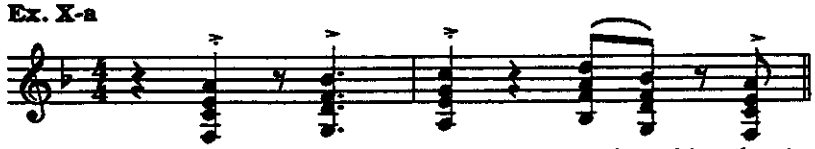


Example X shows a passage voiced in 4 way close. Example X-a shows the same passage voiced in drop 2.

Ex. X

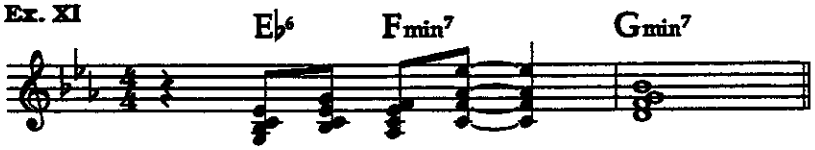


Ex. X-a



An open voicing may occasionally be used in the midst of a 4 way close passage when the melody leaps upward. See Example XI.

Ex. XI

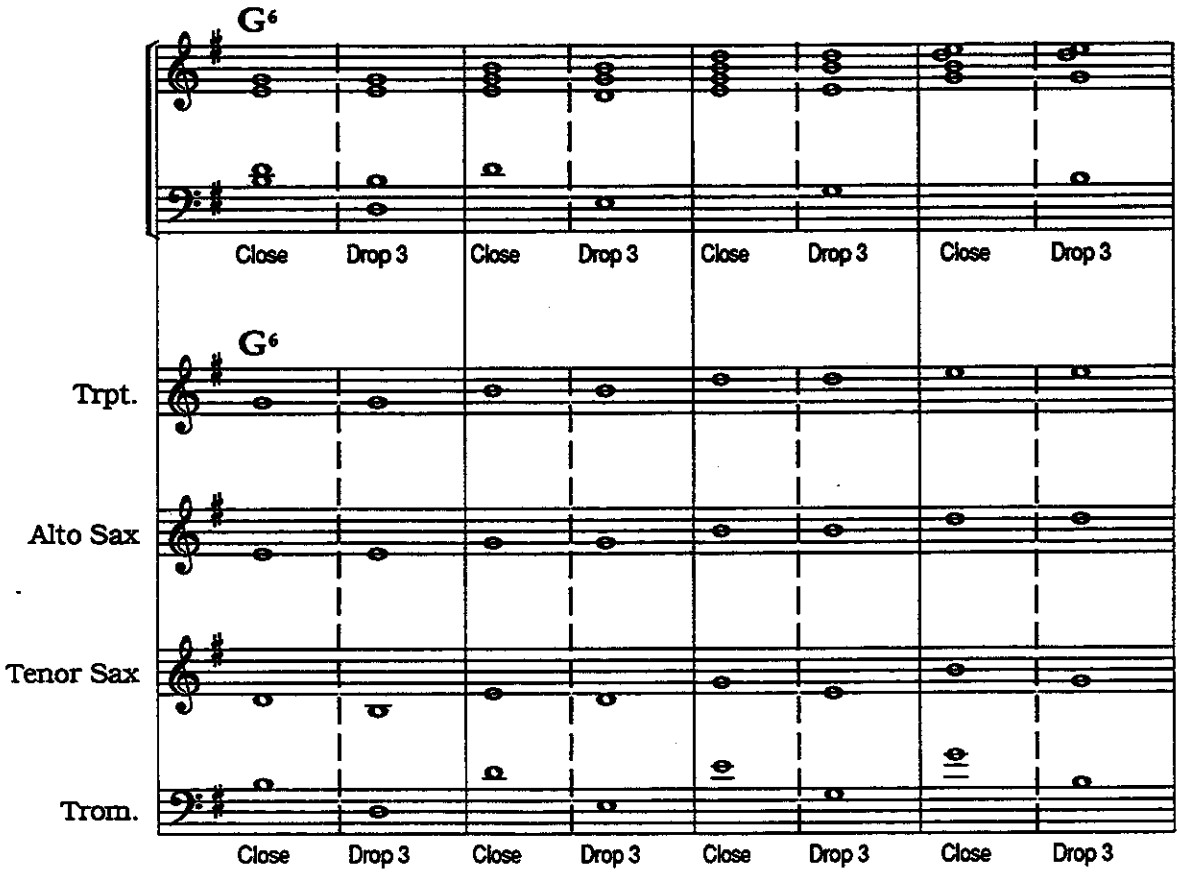


This is just one example of the *variable voicing* technique.

Drop 3 Drop 3 produces a somewhat wider sound than drop 2.

The first step in creating a drop 3 voicing is to give the second voice the note it would have in 4 way close. Then determine which pitch would have been assigned to the third voice, drop that pitch an octave and give it to the bottom voice. Finally, assign the remaining note to the third voice, with no octave adjustment. See Example XII.

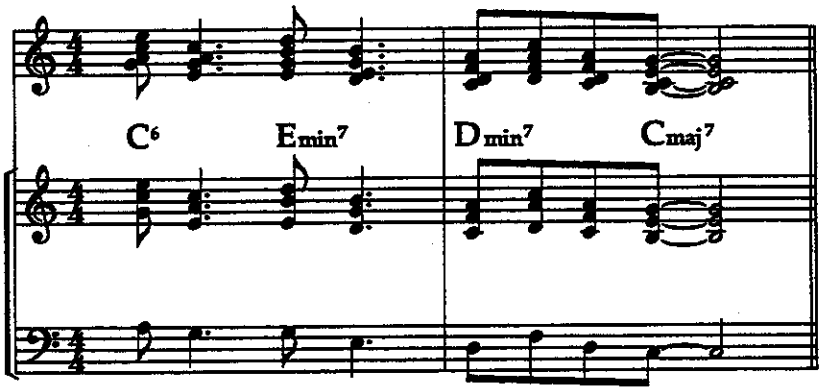
Ex. XII



(Remember to avoid creating the interval of a minor 2nd between the top two voices.)

Example XIII shows a passage voiced in 4 way close. Example XIII-a shows a drop 3 version of the same passage.

Ex. XIII

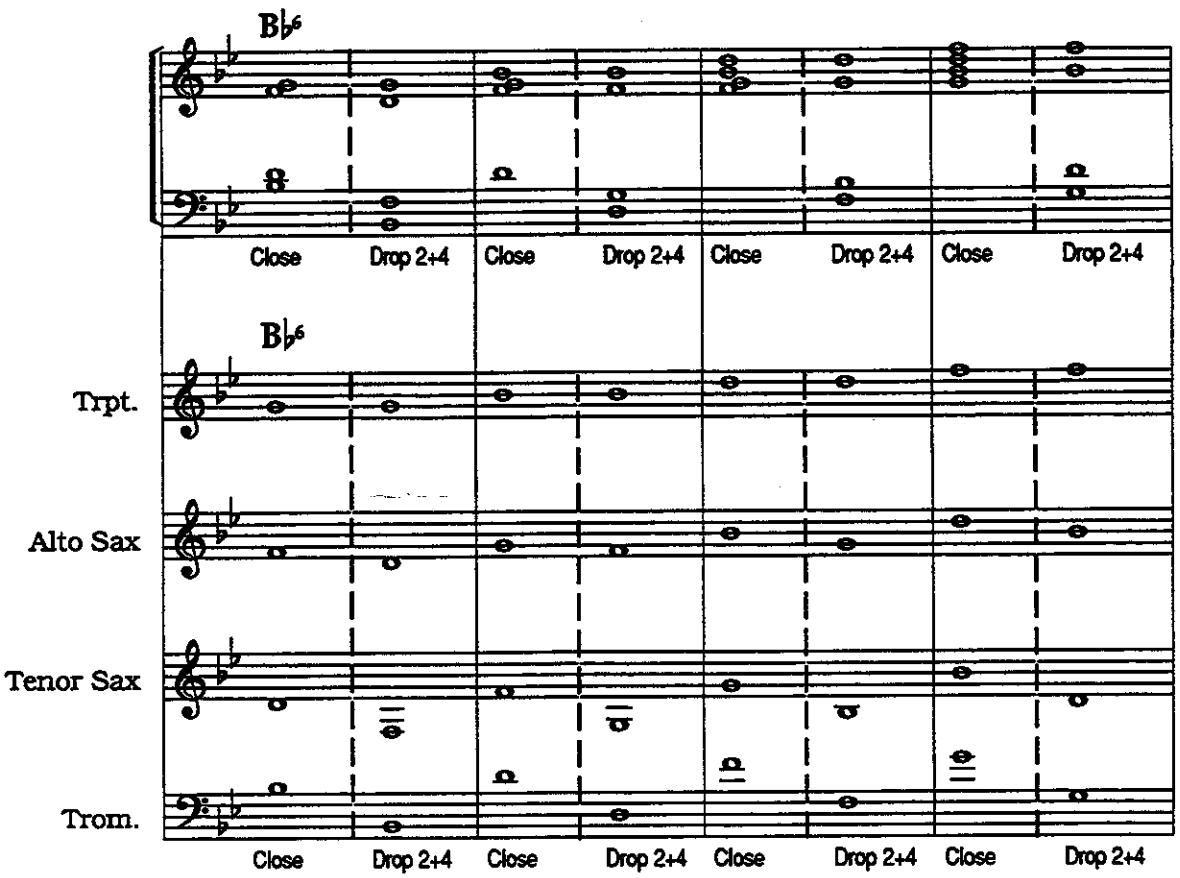


Ex. XIII-a

Drop 2 and 4 This is the widest of the four-part soli voicings.

The first step in creating a drop 2 and 4 voicing is to determine the pitch that would have gone to the second voice in 4 way close, drop it an octave, and assign it to the third voice. Next, give the pitch that would have gone to the third voice to the second voice, with no octave adjustment. Finally, determine what would have been the bottom note, drop it an octave, and give it to the fourth voice. See Example XIV.

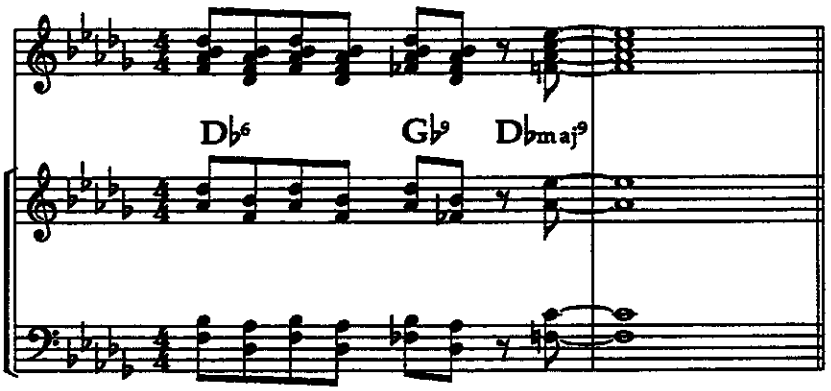
Ex. XIV



Example XV shows a passage in 4 way close. Example XV-a shows the same passage in drop 2 and 4.

Ex. XV

Ex. XV-a



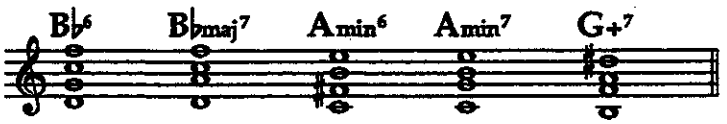
Second Voice Substitute Tensions In Open Voicings

Numerous opportunities exist to create additional harmonic richness by substituting a tension for a chord tone in the SECOND VOICE of a four-part open voicing. Harmonic theory and the arranger's ear should dictate the appropriateness of the various choices.

Drop 2 Voicings

1. Use 9 for 1 in the following chords: (See Example XVI)
   a. major 6th
   b. major 7th
   c. minor 6th
   d. minor 7th (not always appropriate in III-7)
   e. augmented 7th

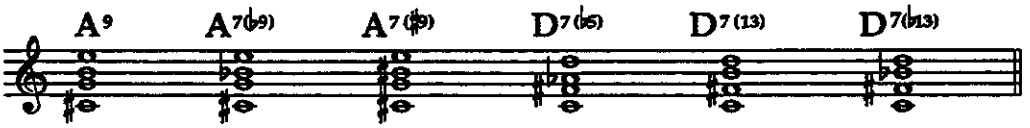
Ex. XVI



2. In dominant 7th chords use one of the following: (See Example XVII)
   a. 9 for 1
   b. b9 for 1
   c. #9 for 1
   d. b5 (#11) for 5
   e. 13 for 5
   f. b13 (#5) for 5

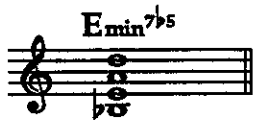
   Note: an added tension normally requires appropriate adjustment of the chord symbol.

Ex. XVII



3. In minor 7 (b5) chords use 11 for 3. See Example XVIII.

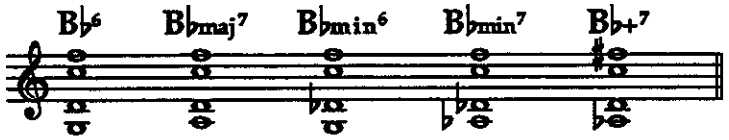
Ex. XVIII



Drop 2 & 4 Voicings

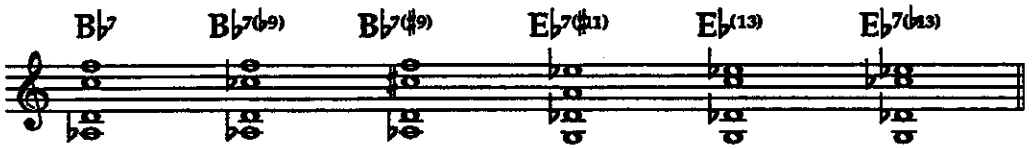
1. Use 9 for 1 in the following chords: (See Example XIX.)
   a. major 6th
   b. major 7th
   c. minor 6th
   d. minor 7th (not always appropriate in III-7)
   e. augmented 7th

Ex. XIX



2. In dominant 7th chords use one of the following: (See Example XX.)
   a. 9 for 1
   b. b9 for 1
   c. #9 for 1
   d. b5 (#11) for 5
   e. 13 for 5
   f. b13 (#5) for 5

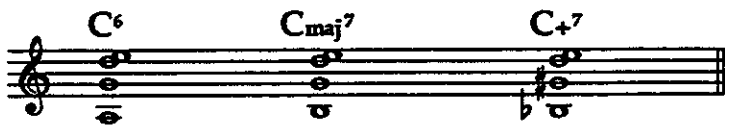
Ex. XX



Drop 3 Voicings

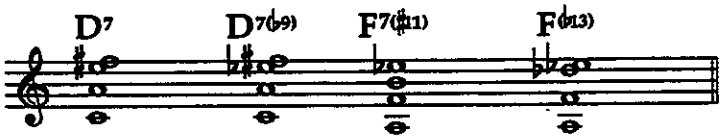
1. Use 9 for 1 in the following chords: (See Example XXI)
   a. major 6th
   b. major 7th
   c. augmented 7th

Ex. XXI



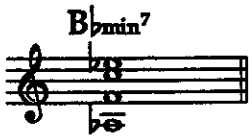
2. In dominant 7th chords use the following: (See Example XXII)
   a. 9 for 1
   b. b9 for 1
   c. b5 (#11) for 5
   d. b13 (#5) for 5

Ex. XXII



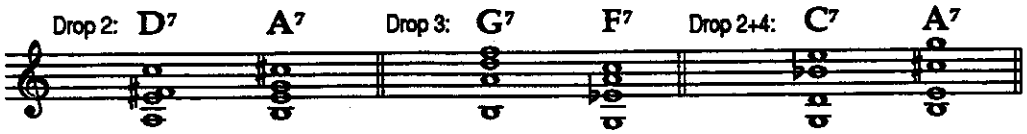
3. Special case: (See Example XXIII)
   Use 9 for 1 with 11 in the lead of a minor 7th chord.

Ex. XXIII



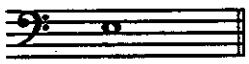
General case In all open voicings (drop 2, drop 3, drop 2 & 4), on dominant 7th chords, 9 for 1 may be used in ANY UNDER VOICE provided that the following "Warning" is observed. See Example XXIV.

Ex. XXIV



Warning Students are advised to avoid writing *any* harmonic tensions below:

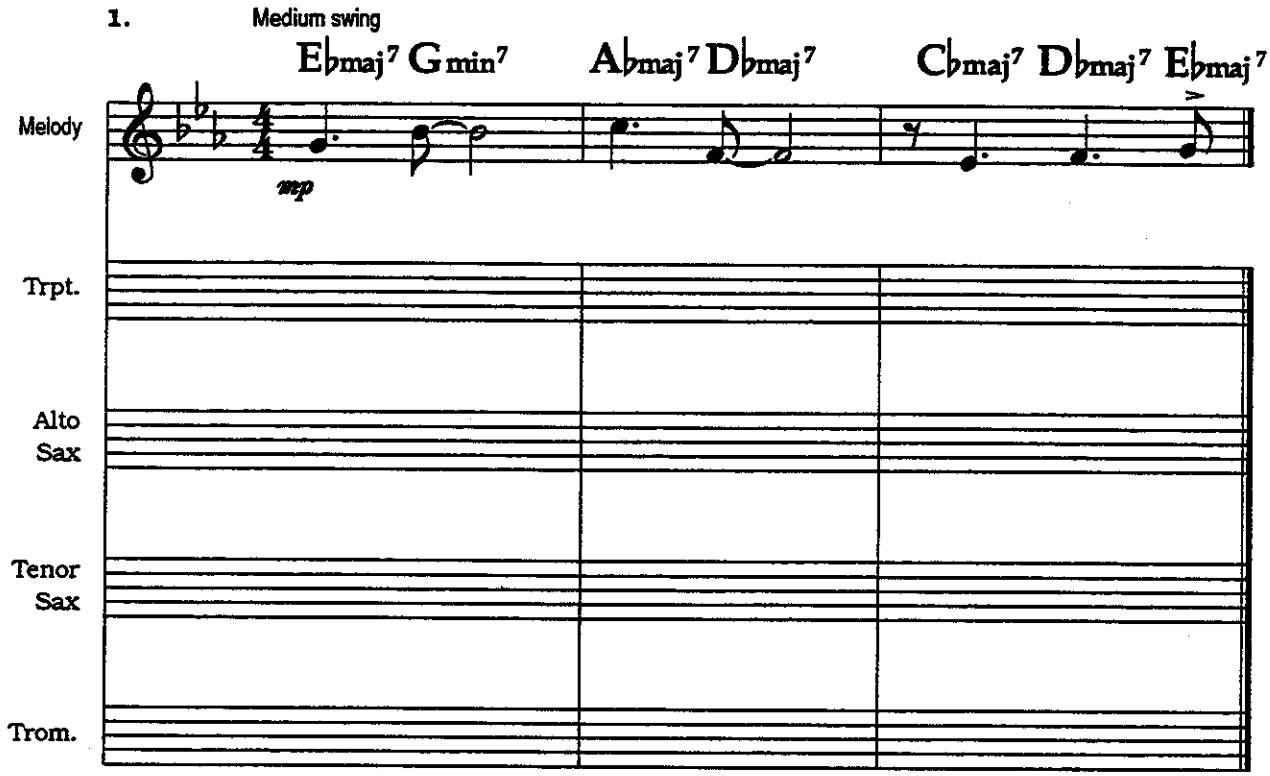
exception: Maj. 7th

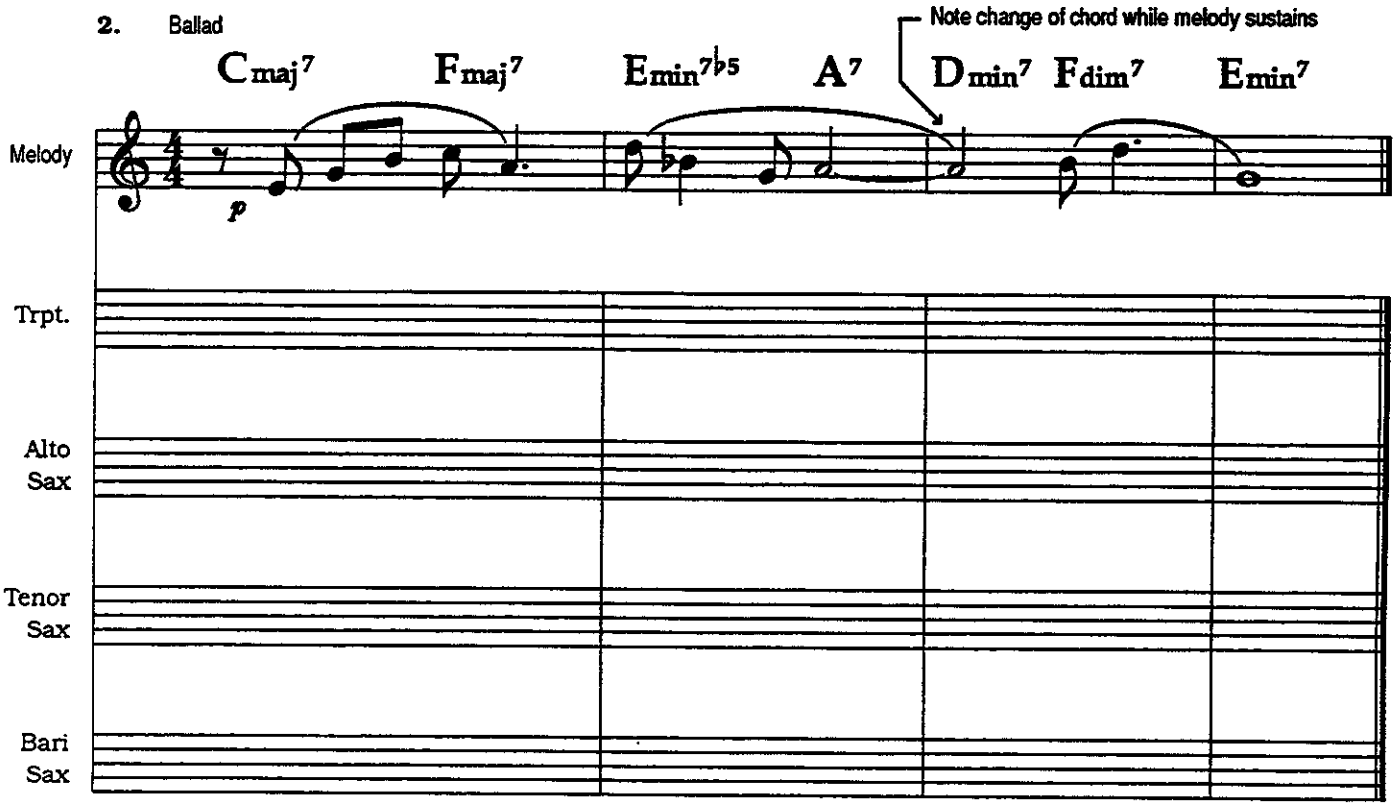


Also note: Special care must be exercised when deciding on the use of open voicings. Avoid them when the resulting under voices would be low enough to produce harmonically indistinct ("muddy") sounds.

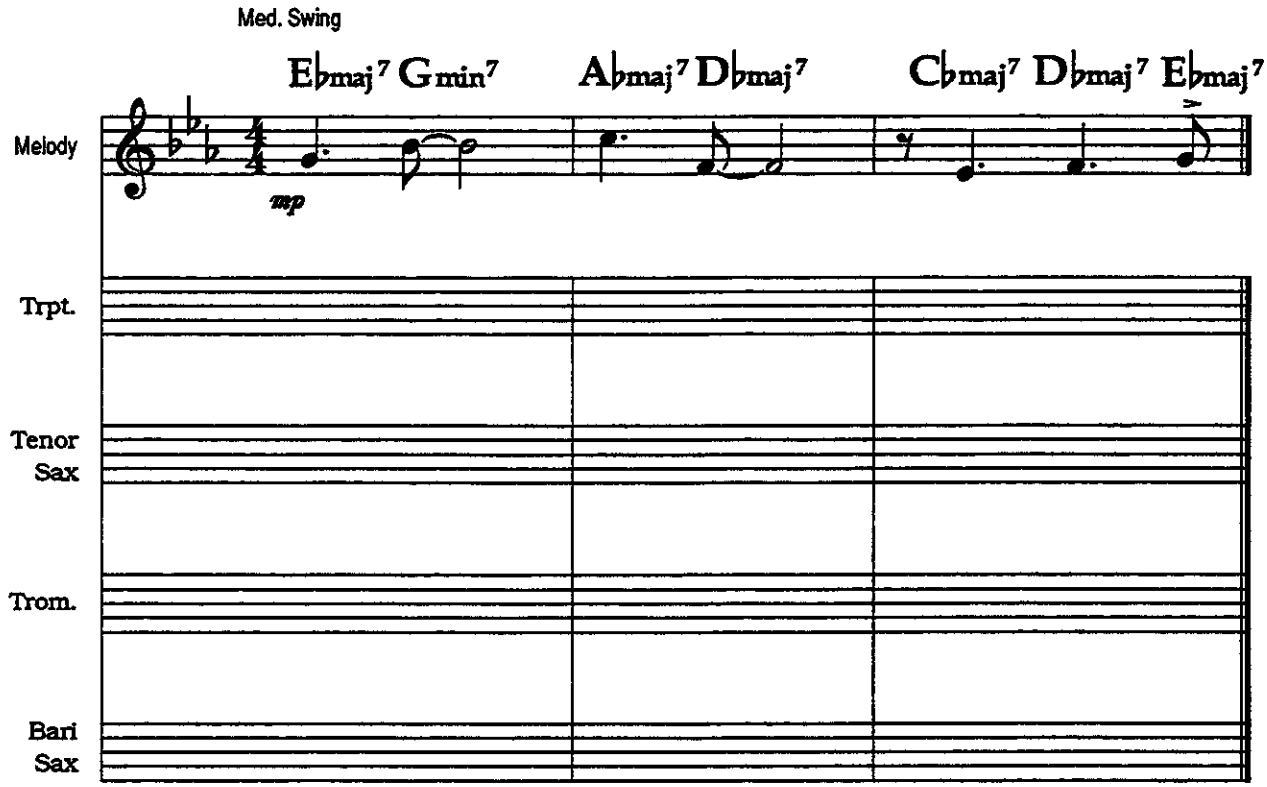
CHAPTER SEVEN
HOMEWORK

A. Arrange the following two examples in four way close. Use chord tones only. You may write in concert or transposed.

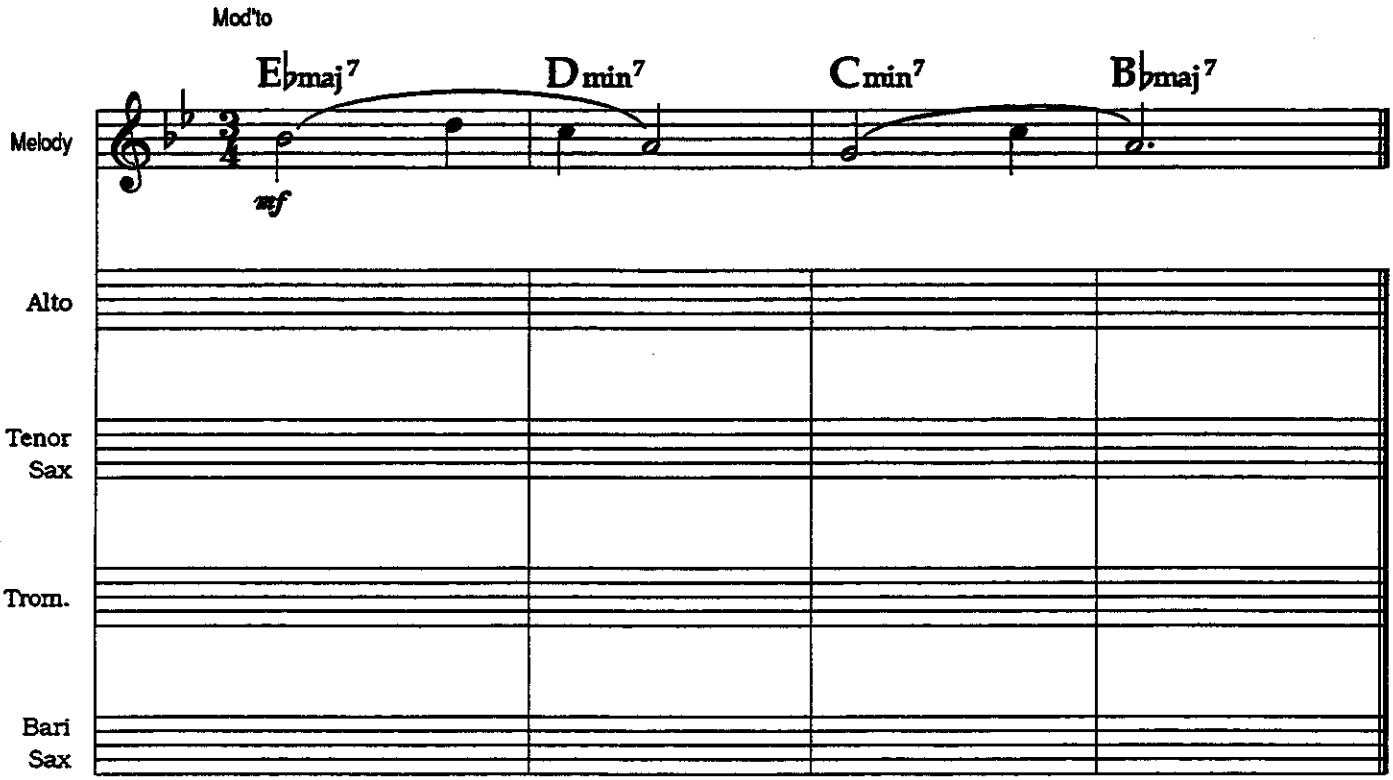




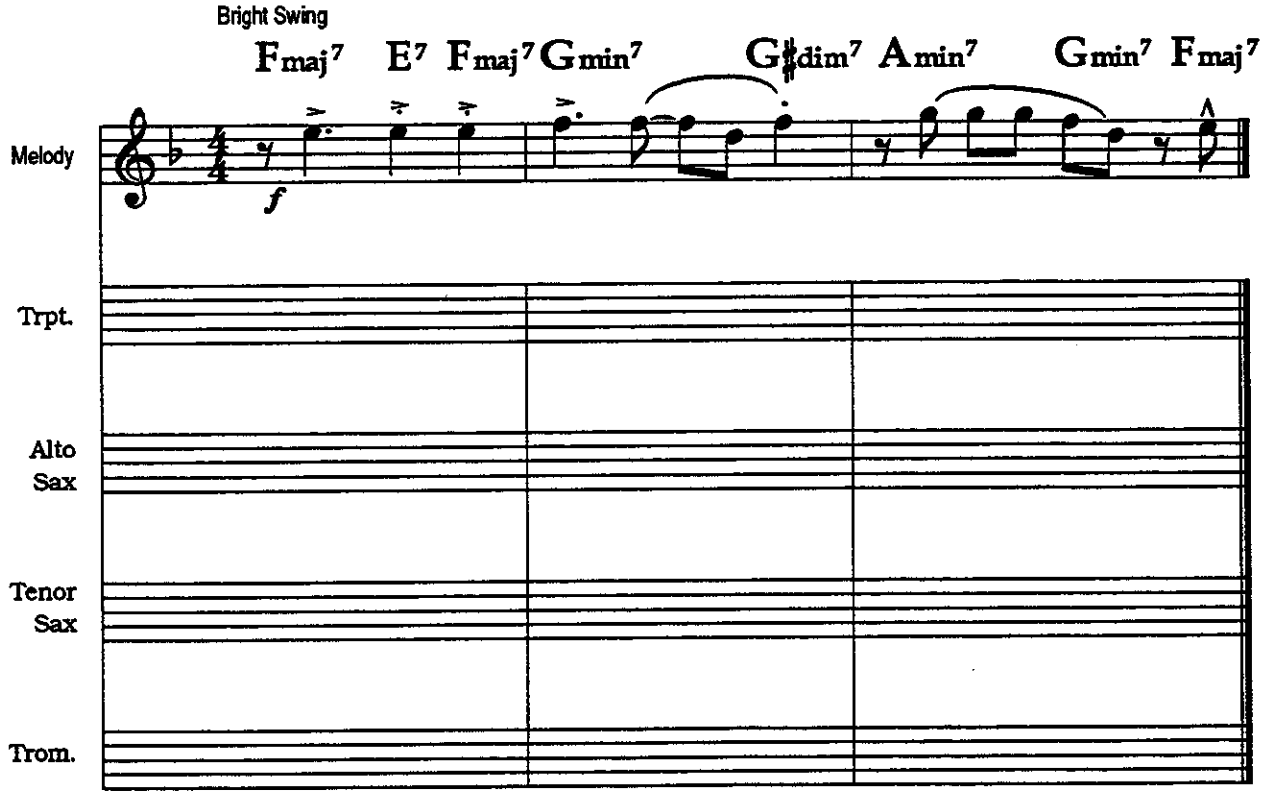
B. Arrange the following example in Drop 2. Use chord tones only. Write in concert or transposed.



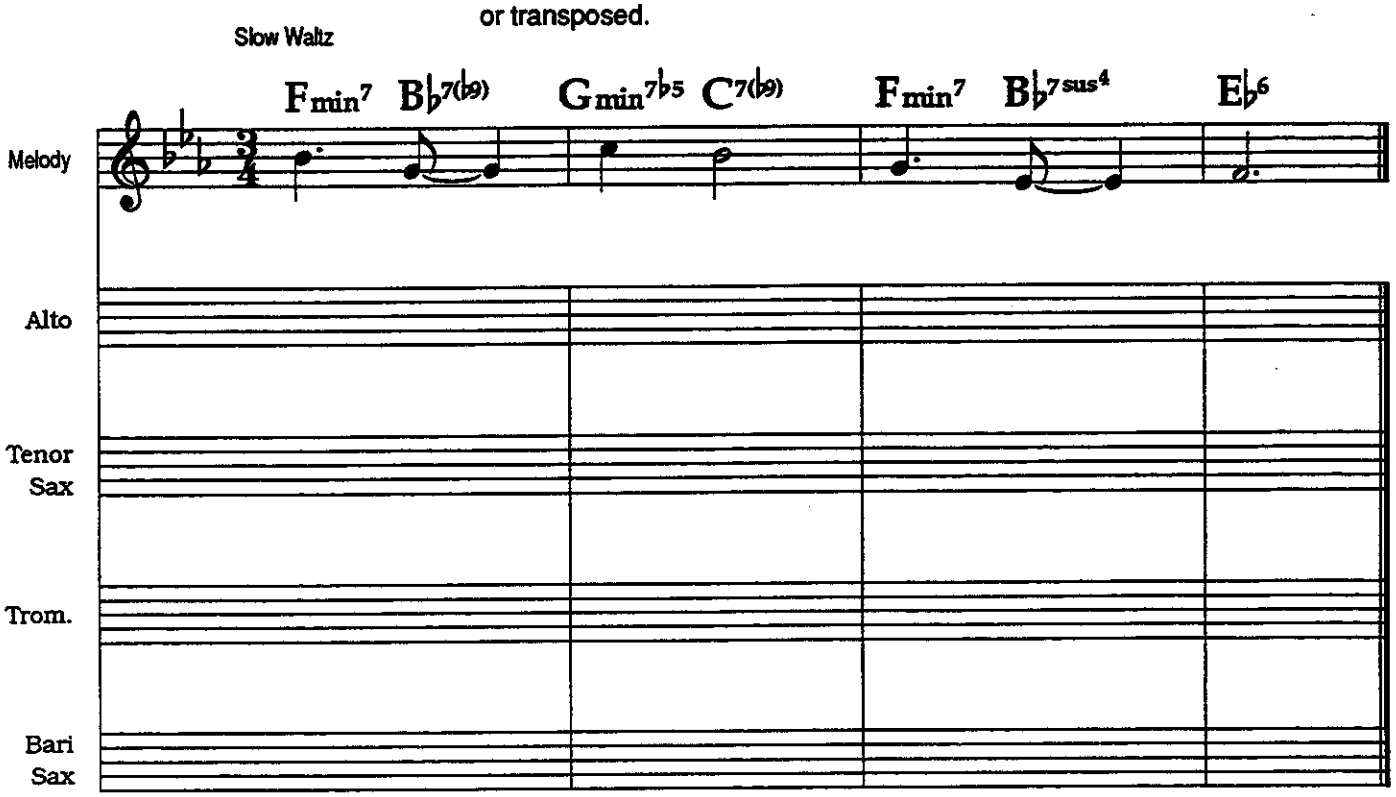
C. Arrange the following example in Drop 3. Use chord tones only. Write in concert or transposed.



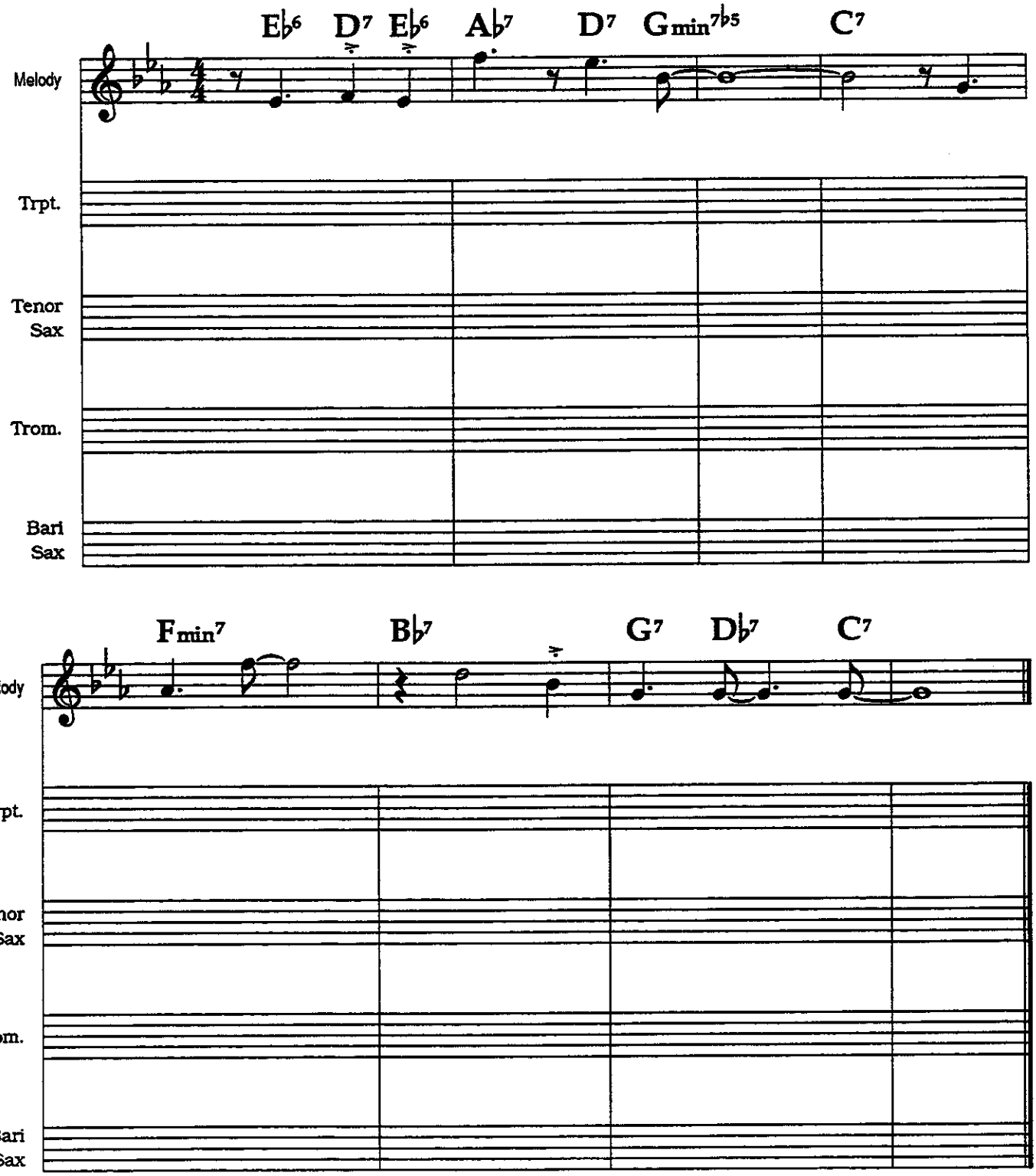
D. Arrange the following example in Drop 2+4. Use chord tones only. Write in concert or transposed.



E. The following lead line contains melodic tensions. Arrange it in 4 way close, using harmonic tensions when indicated in the chord symbols. Write in concert or transposed.



F. Arrange the following passage to the best of your ability. Use any voicings that are appropriate. Utilize any of the harmonization techniques discussed in this chapter. Write a transposed score.



CHAPTER EIGHT

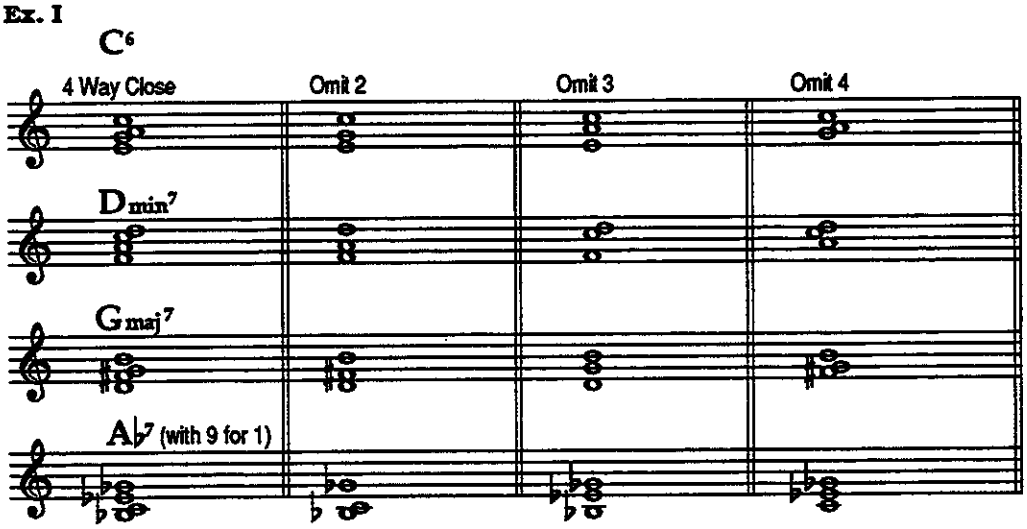
THREE-PART SOLI

Three Way Close Three way close voicings may be derived from four way close in the following ways:

a. Omit 2 (2nd voice)
b. Omit 3 (3rd voice)
c. Omit 4 (4th voice)

In each of these methods the normal four way close voicing is determined; then one note is omitted, thus creating a three way close voicing. When a substitution (such as 9 for 1) would be appropriate in the four way voicing, that substitution may be retained in the three part version. See Example I.

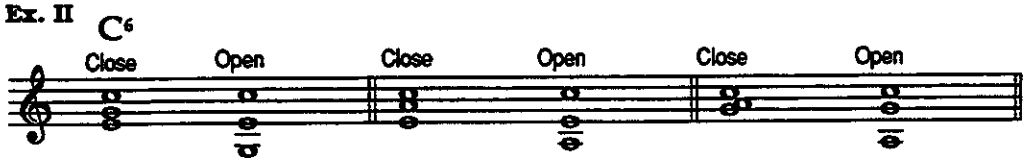
Ex. I



The choice of which three-part voicing to use is normally predicated on the establishment of "completeness" of sound through use of tones which clearly convey chord quality.

Three Way Open Open voicings may be derived from any of the above-mentioned three way close voicings by applying the drop 2 principle. In this situation, omit 4 fares quite well after being opened up. See Example II.

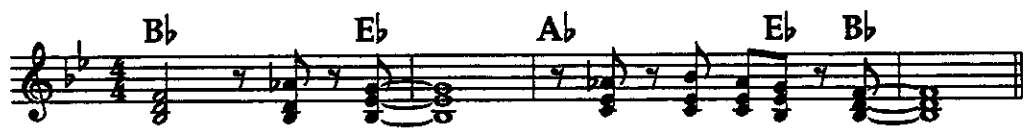
Ex. II



Triadic Voicings (close) Some styles of contemporary music often rely heavily on triadic sounds.

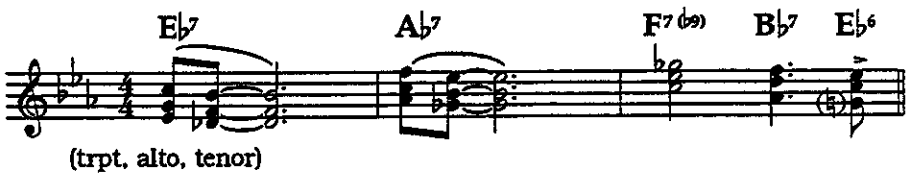
When chord symbols are triadic, voicings are accomplished by assigning a chord tone to each instrument. If the melody note is not a chord tone, it is harmonized by skipping the chord tone immediately beneath it and assigning the next two chord tones to the remaining voices. See Example III.

Ex. III



When chord symbols are not triadic, three way voicings that produce triadic sounds may be created by using the "omit" techniques. See Example IV.

Ex. IV

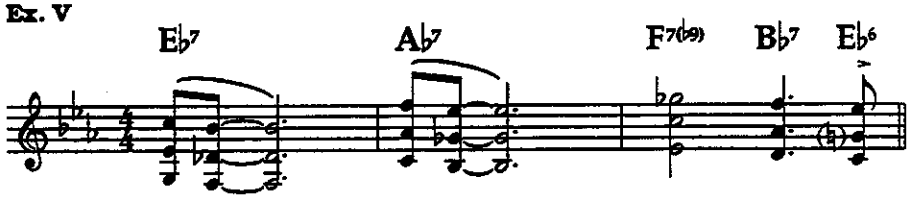


(trpt, alto, tenor)

Open Triadic Voicings

Triadic voicings may also be opened up by utilizing the drop 2 technique. See Example V.

Ex. V

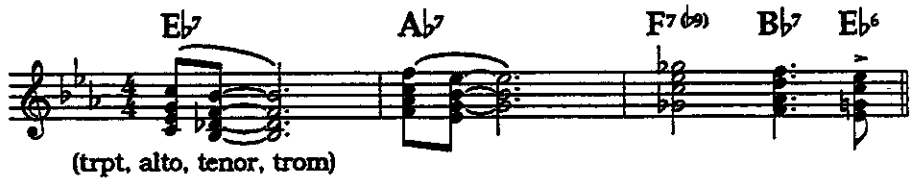


(trpt, tenor, trom)

Four-part Variations

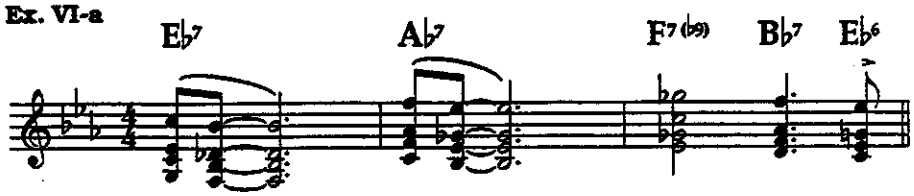
Any of these three-part voicings may be strengthened melodically, without destroying the musical style of the arrangement, if a fourth voice is available. Work out the voicings for three parts as described above; then write a fourth part which doubles the melody ONE OCTAVE LOWER than the lead. See Examples VI and VI-a

Ex. VI



(trpt, alto, tenor, trom)

Ex. VI-a

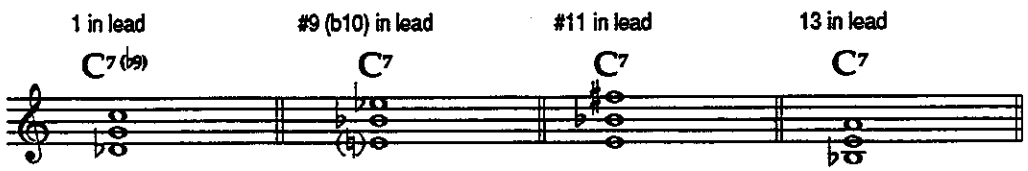


(trpt, alto, trom, bari) or
(trpt, alto, tenor, trom)

Special Cases

Example VII shows four special case voicings which may be used in appropriate V7 situations.

Ex. VII



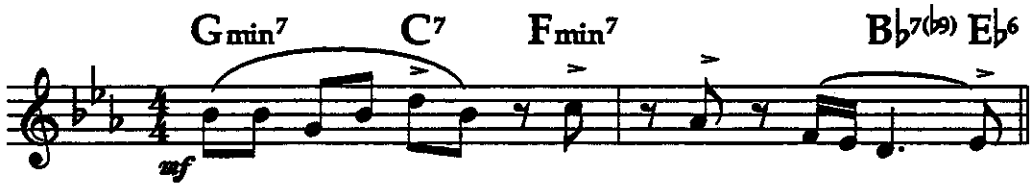
CHAPTER EIGHT

HOMEWORK

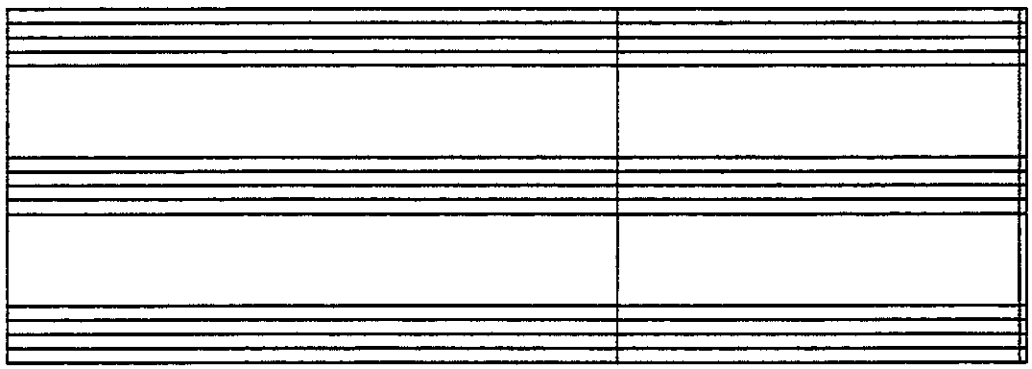
A. Arrange the given melody in three way close, using the indicated voicing technique for each part of the exercise. Write each one in a different key. Choose an appropriate instrumentation for each.

"Bright 4"

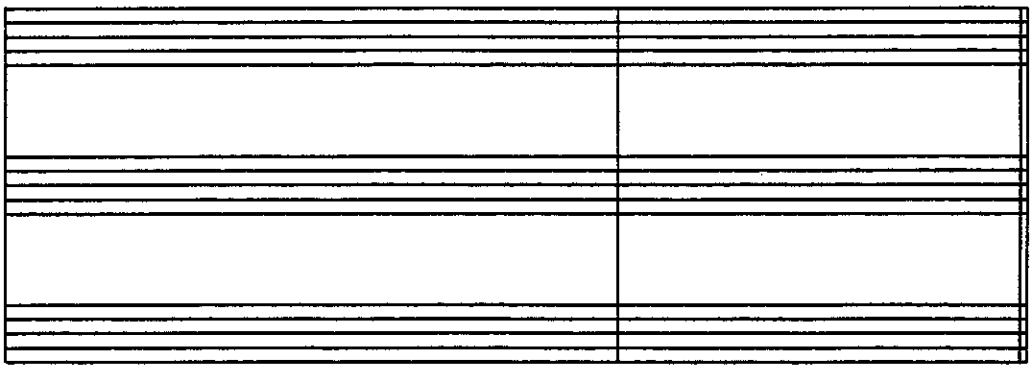
Given melody



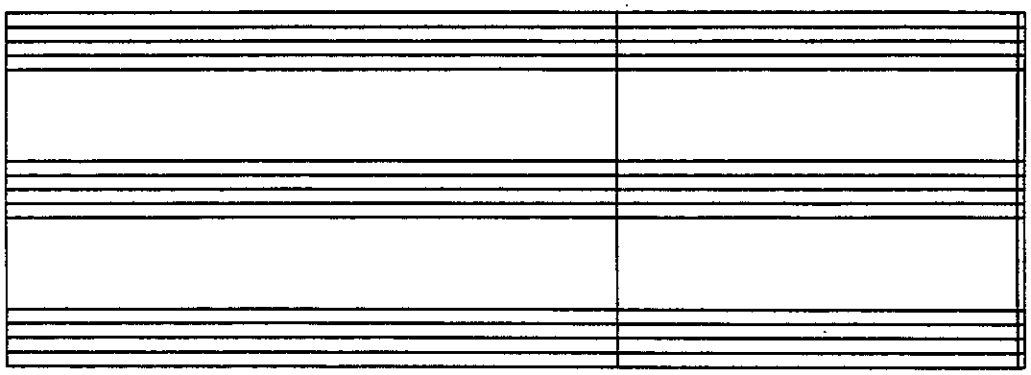
1. Use omit 4



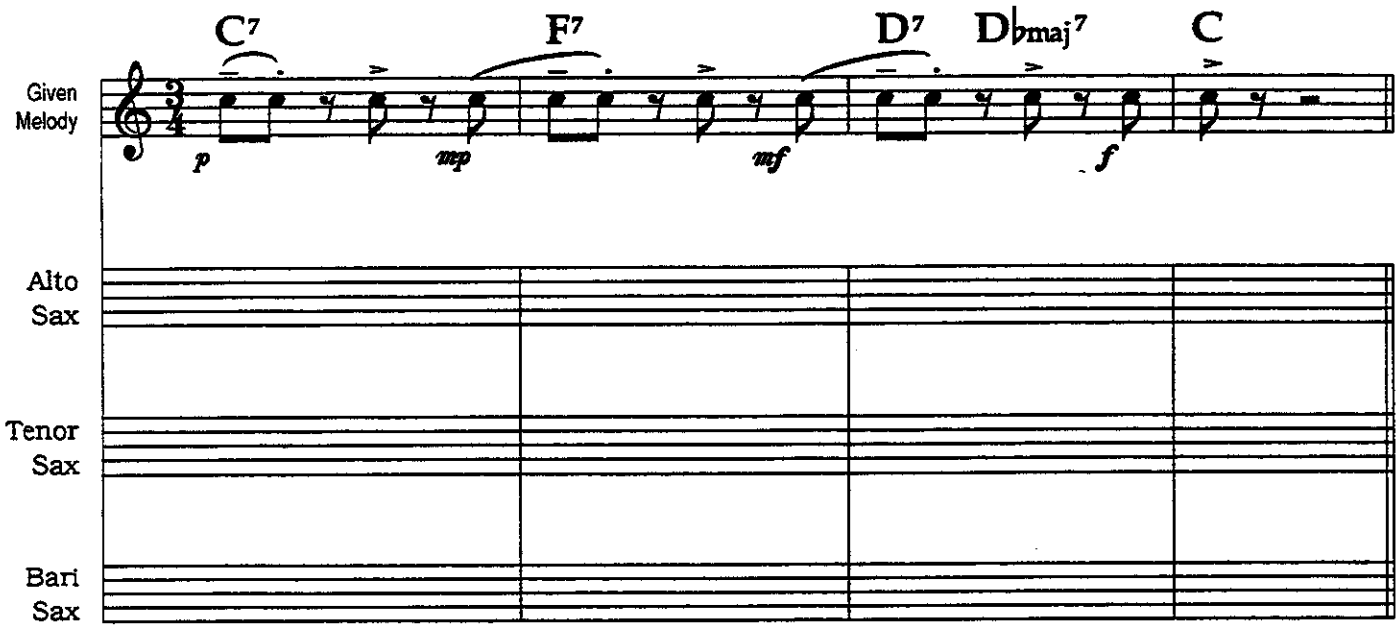
2. Use omit 2



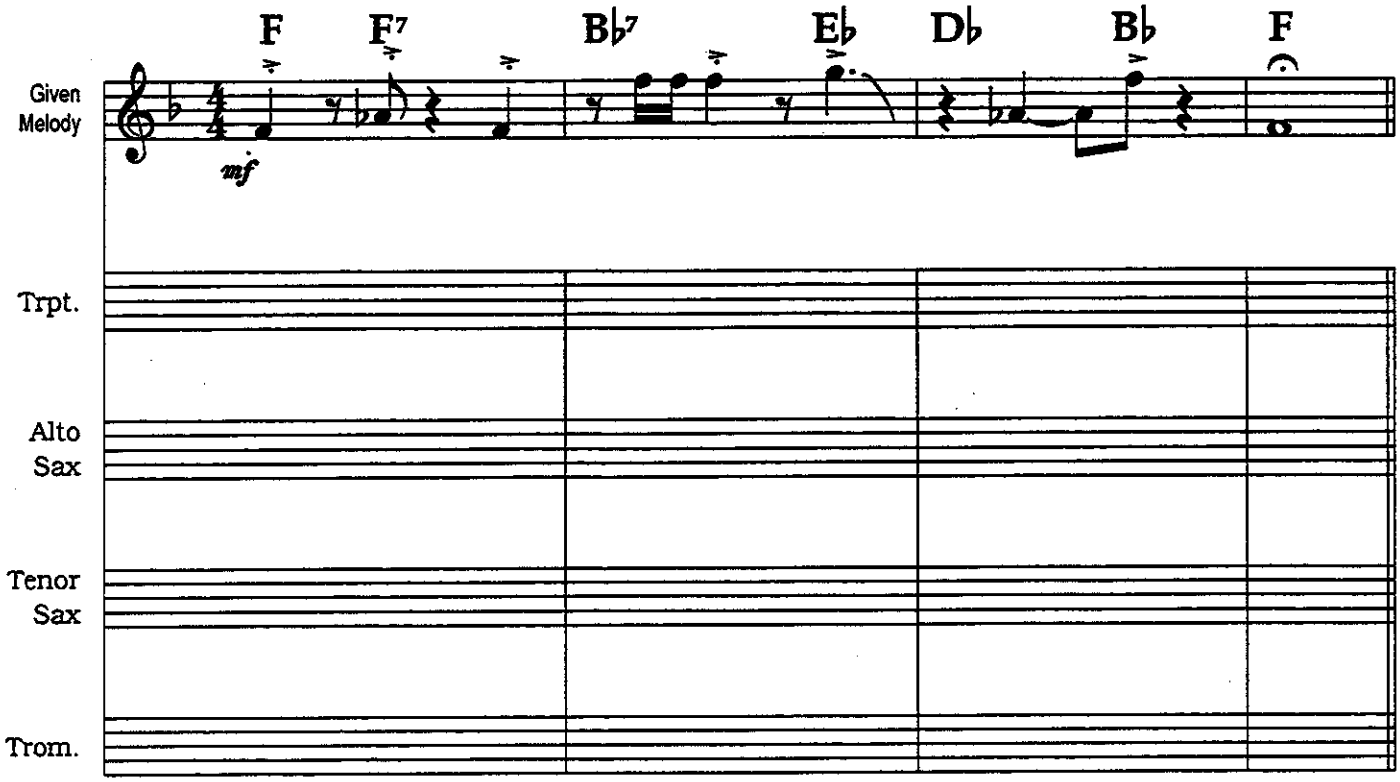
3. Use omit 3



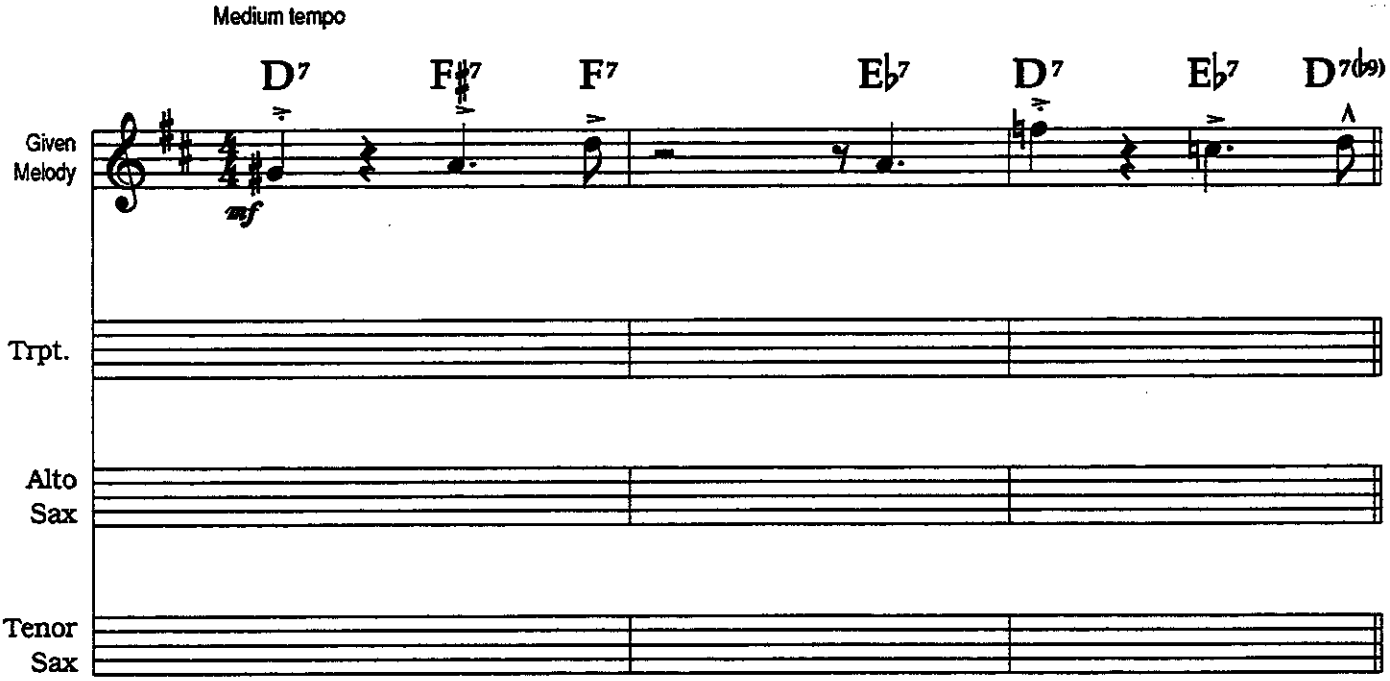
B. Arrange the following melody in three way open. All indicated 7ths should appear in the voicings.



C. Arrange the following melody for four instruments. Use triadic voicings with the melody doubled an octave below the lead. Use close and open voicings.



D. Arrange the following melody for the three instruments indicated. Use only the "special case" voicings as shown in Example VII.



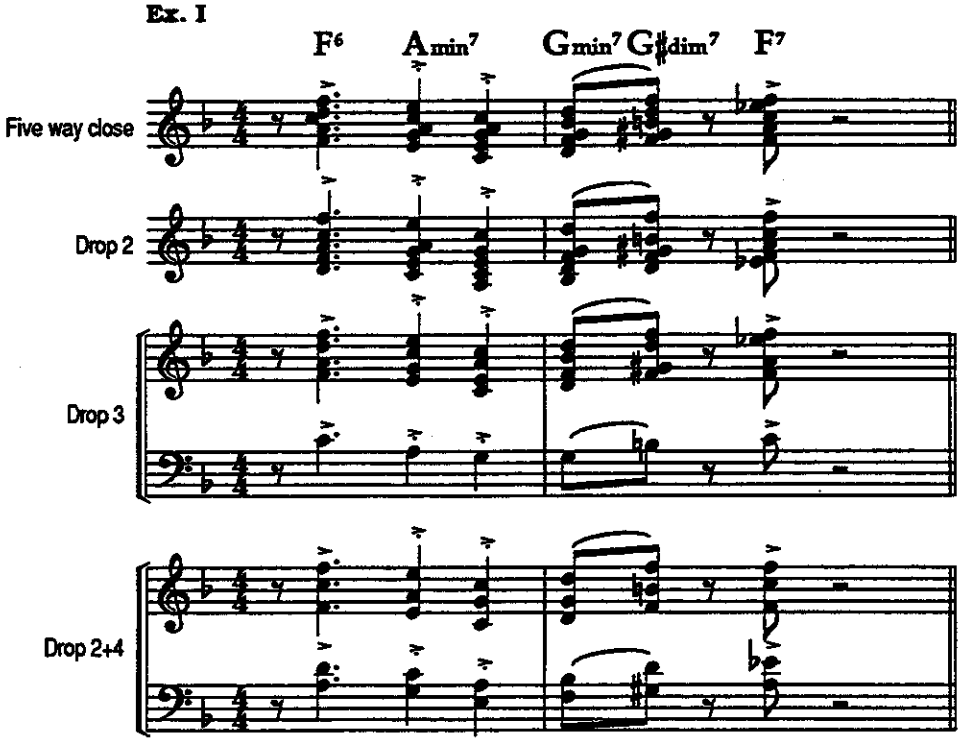
CHAPTER NINE
FIVE-PART SOLI

All of the five-part soli voicings described here are derived from standard voicings which were discussed in the chapter on four-part soli.

In these five-way adaptations, three of the under voices are assigned to harmony notes (as in four-way), while the remaining voice doubles the melody AN OCTAVE LOWER than the lead. Example I shows examples of five-part versions of four way close, drop 2, drop 3, and drop 2+4.

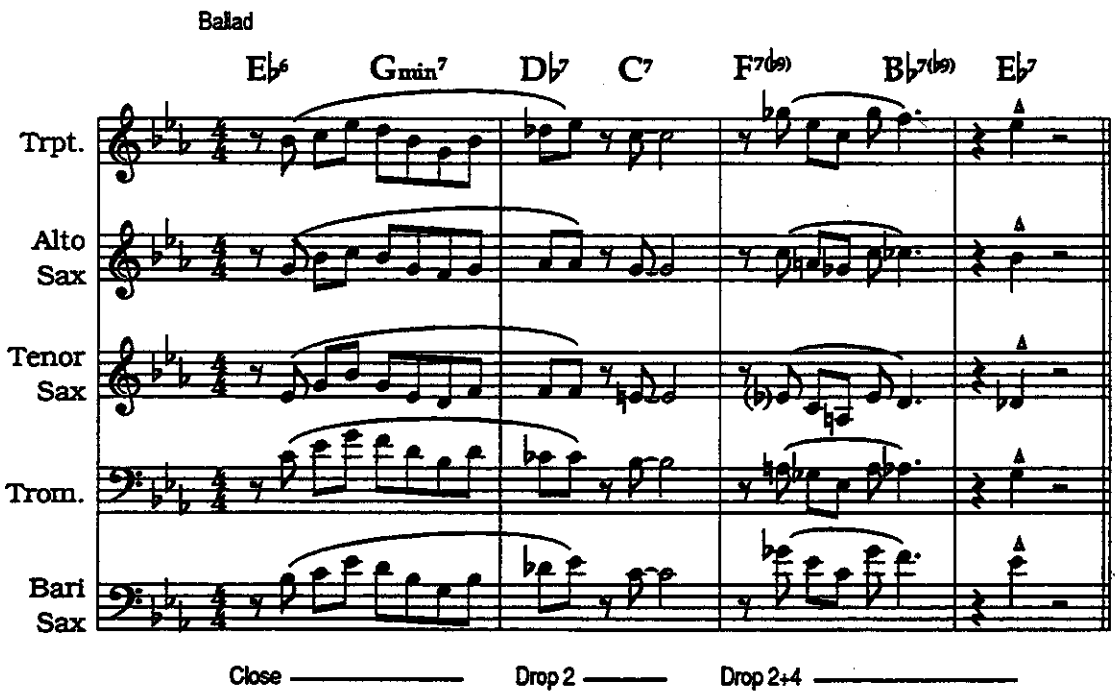
Notice that if one voicing technique is maintained throughout a particular passage, the octave doubling of the lead automatically remains in the same voice.

Ex. I



If different voicings are to occur within a passage, the arranger may choose to retain the doubling of the melody in the same voice throughout. This requires a bit of manipulation, but the resultant consistency of sound justifies the extra effort.

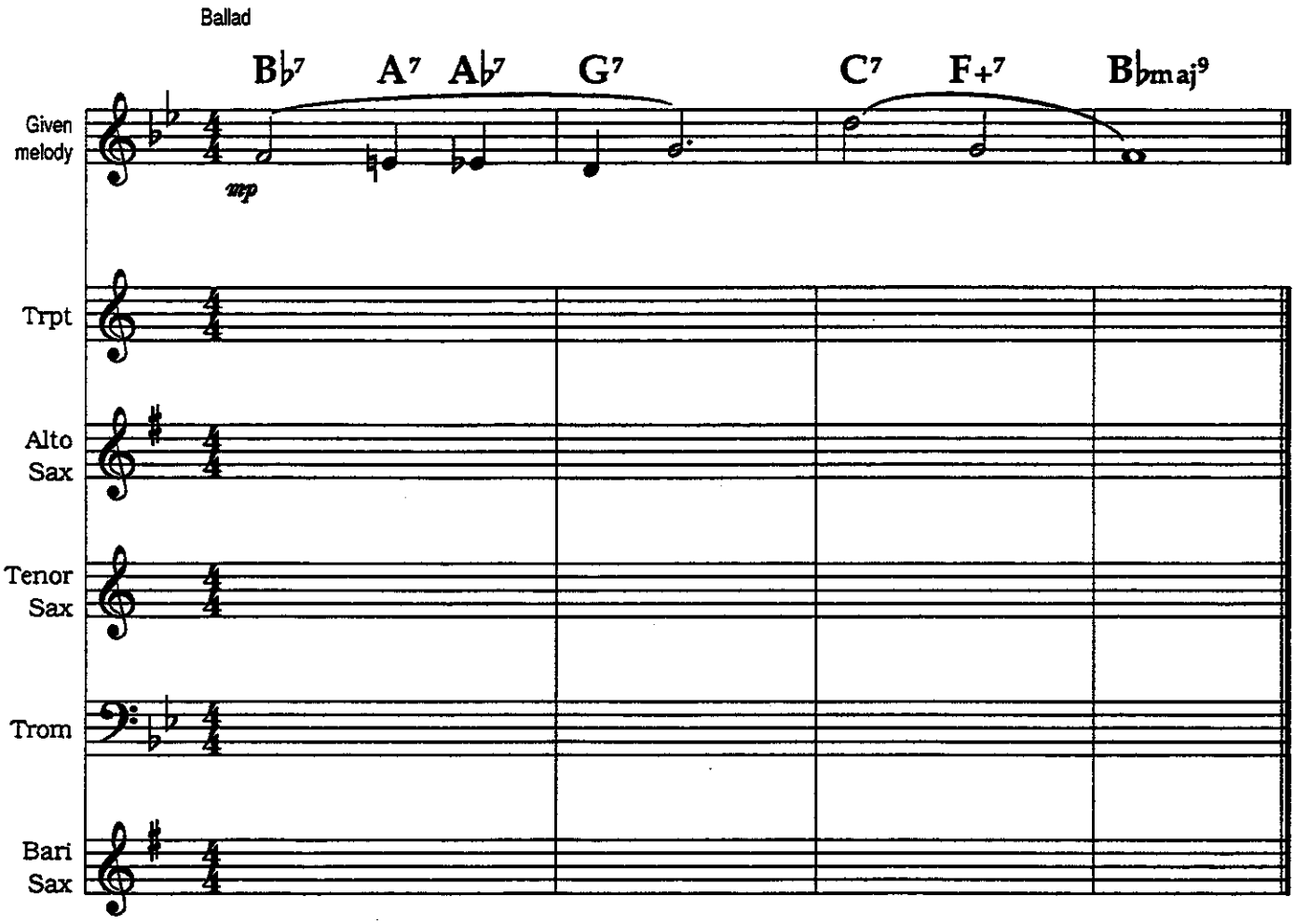
Ex. II



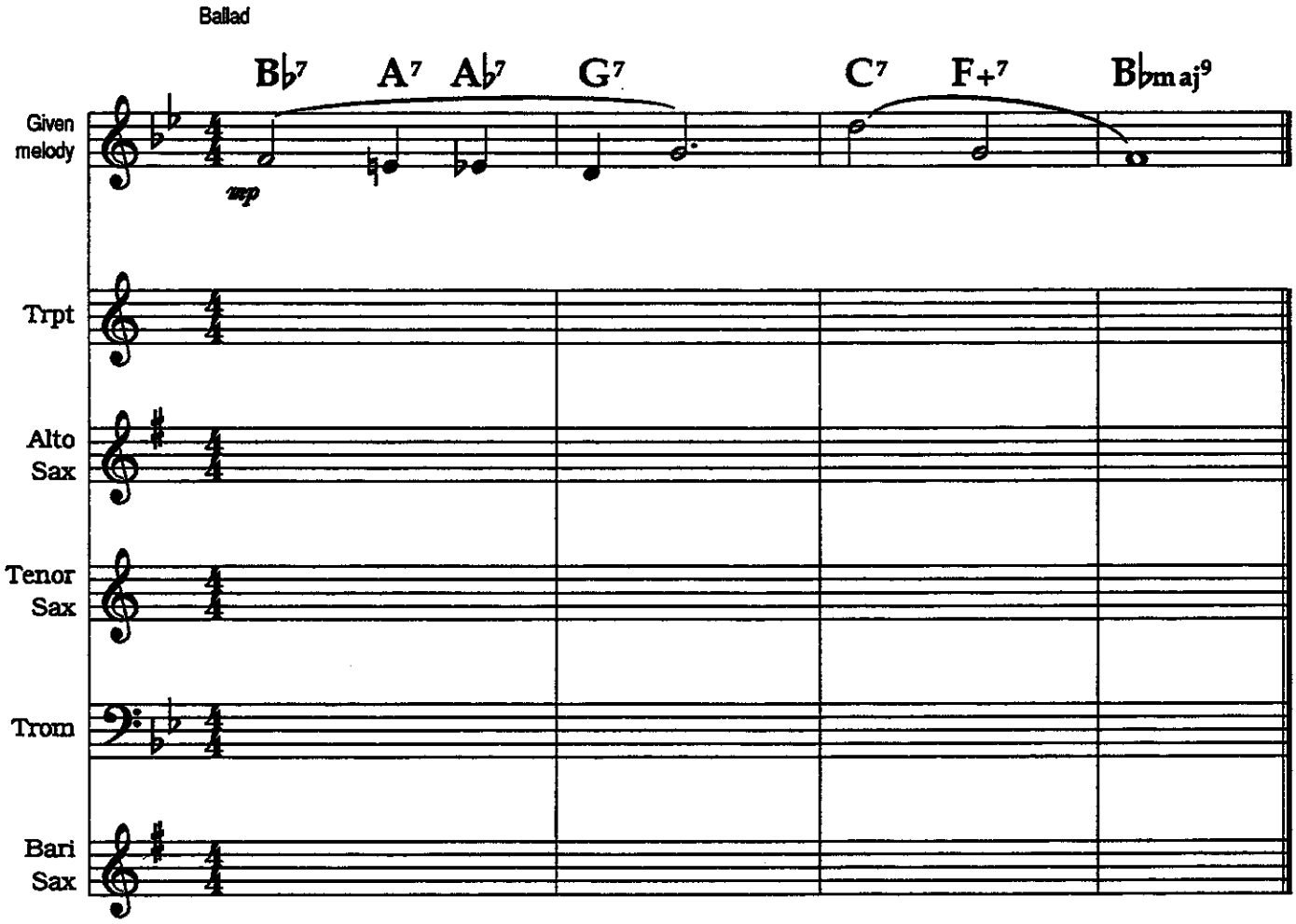
Note: 8vb melody doubling stays in baritone sax part, requiring crossed in voices in last three bars.

CHAPTER NINE
HOMEWORK

A. Arrange the following melody using four way close with doubled lead. Write a transposed score.



B. Arrange the same melody using Drop 2.



CHAPTER TEN

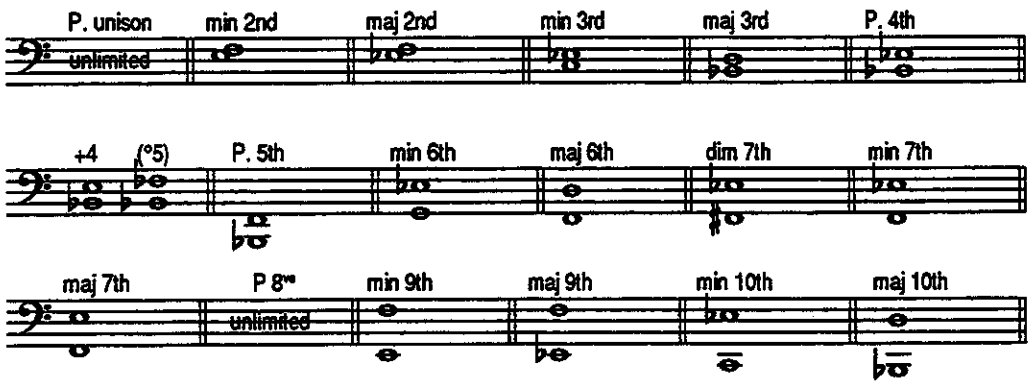
LOW INTERVAL LIMITS (LILs)

There are numerous reasons why intervals begin to sound muddy or indistinct when they occur below certain limits. These reasons have to do with the science of acoustics, as well as with problems players encounter when they must produce notes which contribute to such sounds.

It should be understood that the limits suggested by Example I are not absolutes. They do, however, represent areas below which there is a very real risk that the resultant sound will not work well within a normal harmonic context.

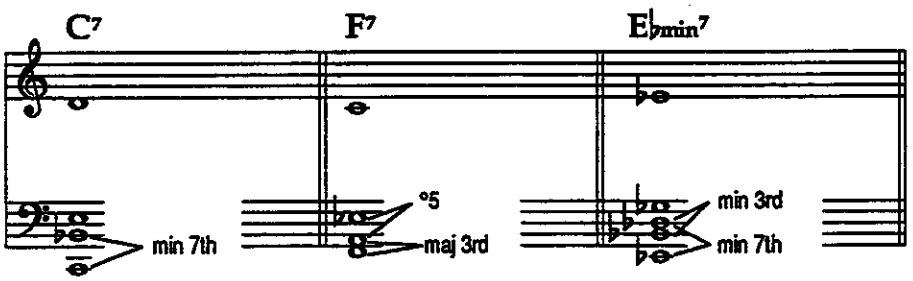
The student will be expected to know these limits and not violate them when writing assignments for this course. Most other arranging courses at Berklee make the same stipulation. See Example I.

Ex. I



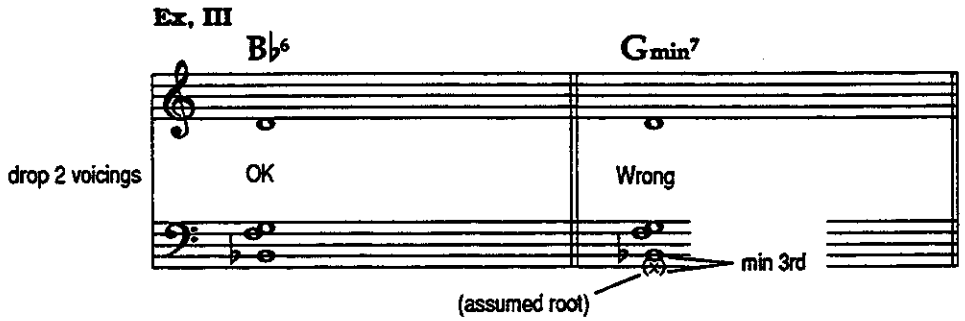
The restrictions apply whether the interval occurs in its simplest form (i.e., only two notes being played) or as part of a more complex voicing. Example II shows instances of LIL violations occurring within chord voicings.

Ex. II



If the bottom note of a voicing is not the root of the chord, the existence of the root which is immediately below that note must be assumed. This "assumed root" is then used to determine whether or not there is an LIL problem.

Ex. III

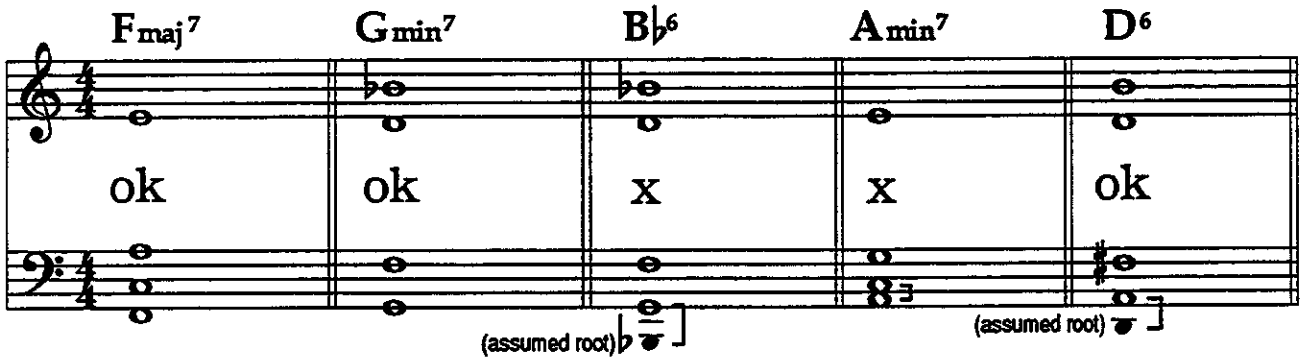


CHAPTER TEN
HOMEWORK

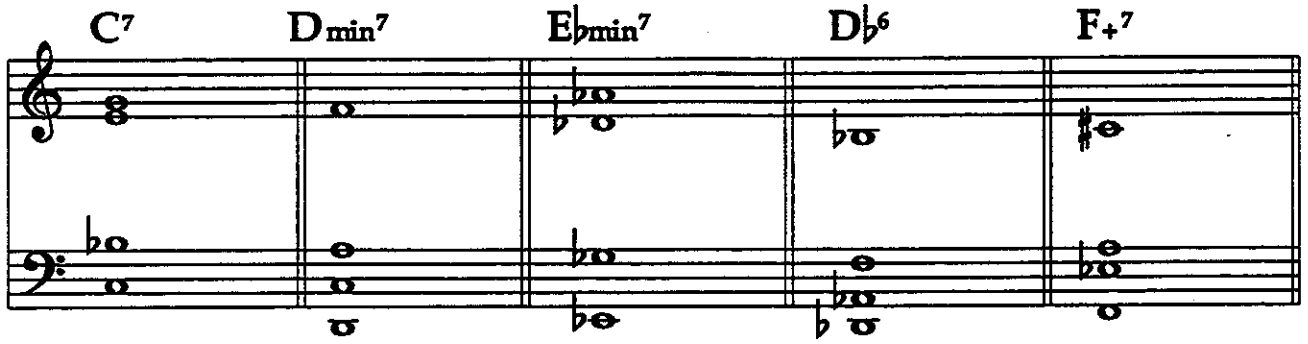
Analyze the following voicings to determine whether or not they contain one or more low interval limit violations, according to this chapter.

Write "OK" to indicate a correct voicing; bracket the offending interval(s) in the incorrect voicings. Also show the location of *any* assumed roots.

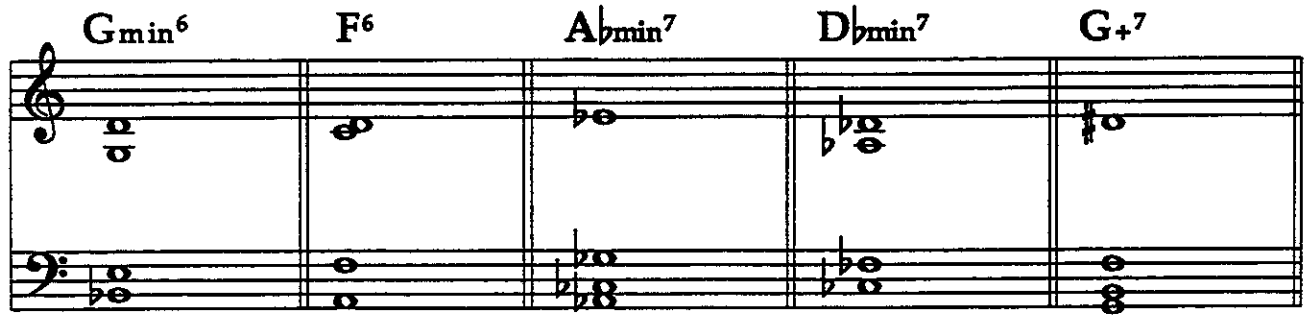
Examples:

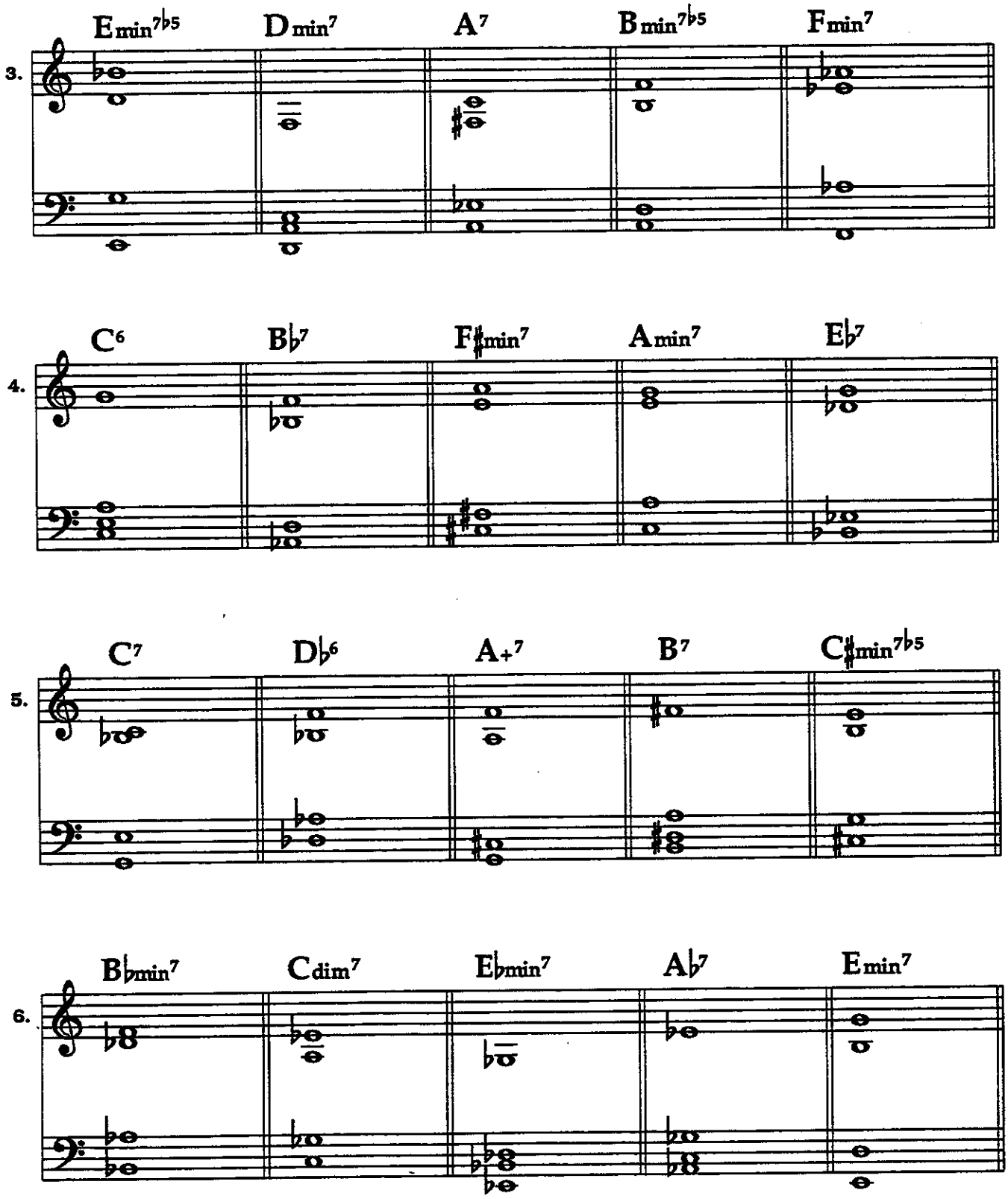


1.



2.




3.
Emin7♭5
Dmin7
A7
Bmin7♭5
Fmin7
4.
C6
B♭7
F♯min7
Amin7
E♭7
5.
C7
D♭6
A+7
B7
C♯min7♭5
6.
B♭min7
Cdim7
E♭min7
A♭7
Emin7

CHAPTER ELEVEN
FIVE-NOTE SOLI VOICINGS

By now the student should have a good understanding of five-part four-note soli voicings. There are times when richer harmonic textures may be suitable, such as when the melody note occurs in a sustained or percussive situation. In these cases, with a chord tone in the melody, a harmonic tension may be substituted for the 8vb doubling of the lead. The voicing which is to be altered may be close or open.

Keep in mind that in every one of the situations described below ***the substitution occurs only in the voice that originally would have doubled the lead one octave lower.*** Any substitution listed refers only to the change to be made ***in that voice.***

For instance, in this context the phrase "9 for 1" applies to the following circumstance: 1 of the chord is in the melody; the voice which normally would have played the melody note (1 of the chord) at 8vb is assigned 9 of the chord instead.

The "fraction" symbol refers only to the following:

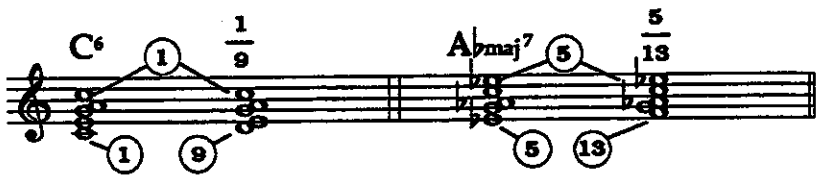
Top number = Note in lead.

Bottom number = Note in the lower voice which formerly doubled the lead.

Therefore, the fraction symbol $\frac{1}{9}$ means the same as "9 for 1."

See Example 1.

Ex. 1



Note: The "fraction" is used for purposes of discussion only. It is *not* used when writing chord symbols for scores or parts.

Available Situations

The formulas shown in a. and b. below will work in close or open position.

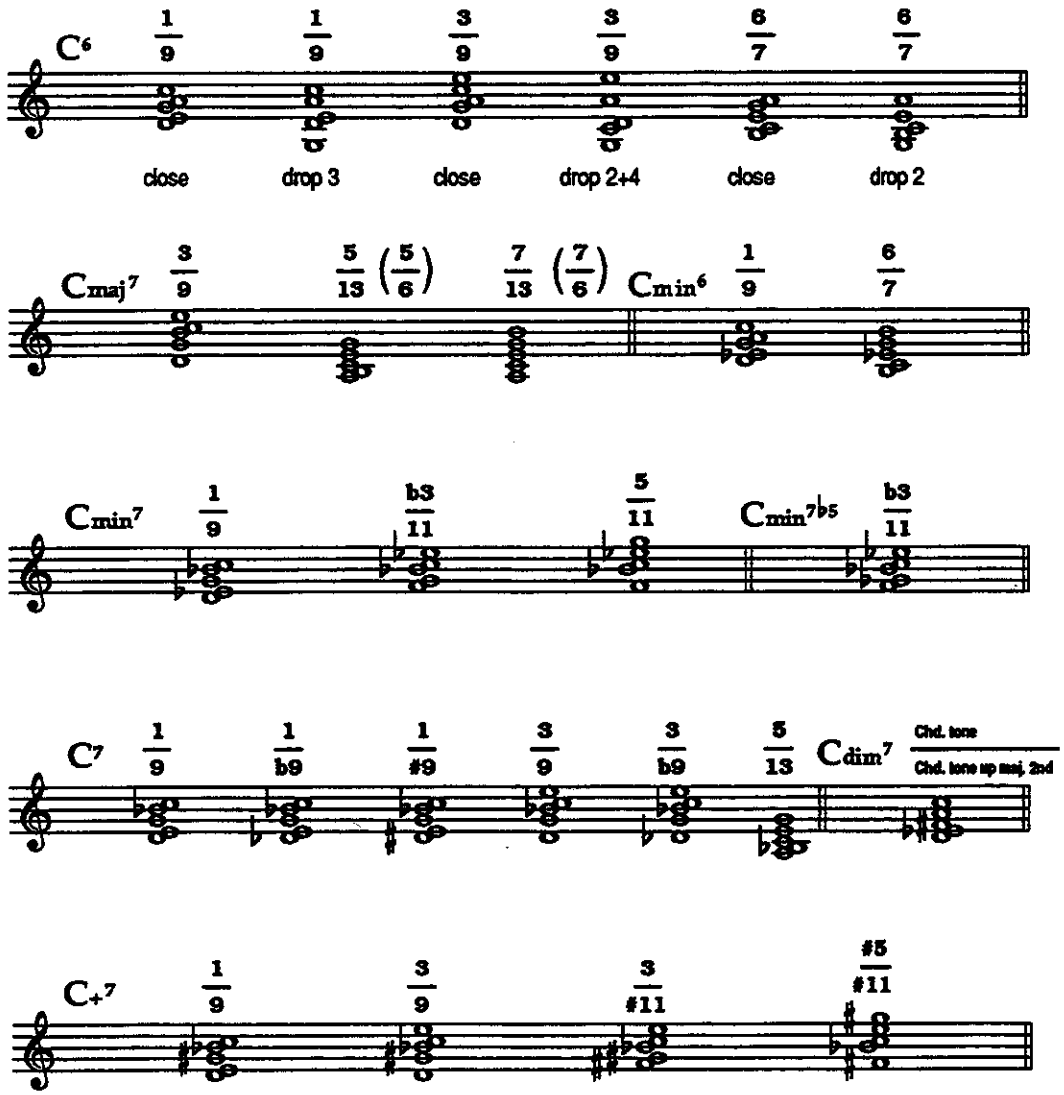
a. Chord Tone in Lead (Note: $\frac{\text{chord tone}}{0}$ = no subsitution available)

Major 6th	chord	:	$\frac{1}{9}$	$\frac{3}{9}$	$\frac{5}{0}$	$\frac{6}{7}$
Major 7th	"	:	$\frac{1}{0}$	$\frac{3}{9}$	$\frac{5}{13}$	$\frac{7}{13}$
Minor 6th	"	:	$\frac{1}{9}$	$\frac{b3}{0}$	$\frac{5}{0}$	$\frac{6}{7}$
Minor 7th	"	:	$\frac{1}{9}$	$\frac{b3}{11}$	$\frac{5}{11}$	$\frac{b7}{0}$

Minor 7th b5	"	:	1/0 b3/11 b5/0 b7/0
Dom. 7th	"	:	1/9 1/b9 1/#9 3/9 3/b9 5/13 b7/0
Dim. 7th	"	:	Chord tone / Chord tone up maj. 2nd
Aug. 7th	"	:	1/9 3/9 3/#11 #5/#11 b7/0

See Example II.

Ex. II.

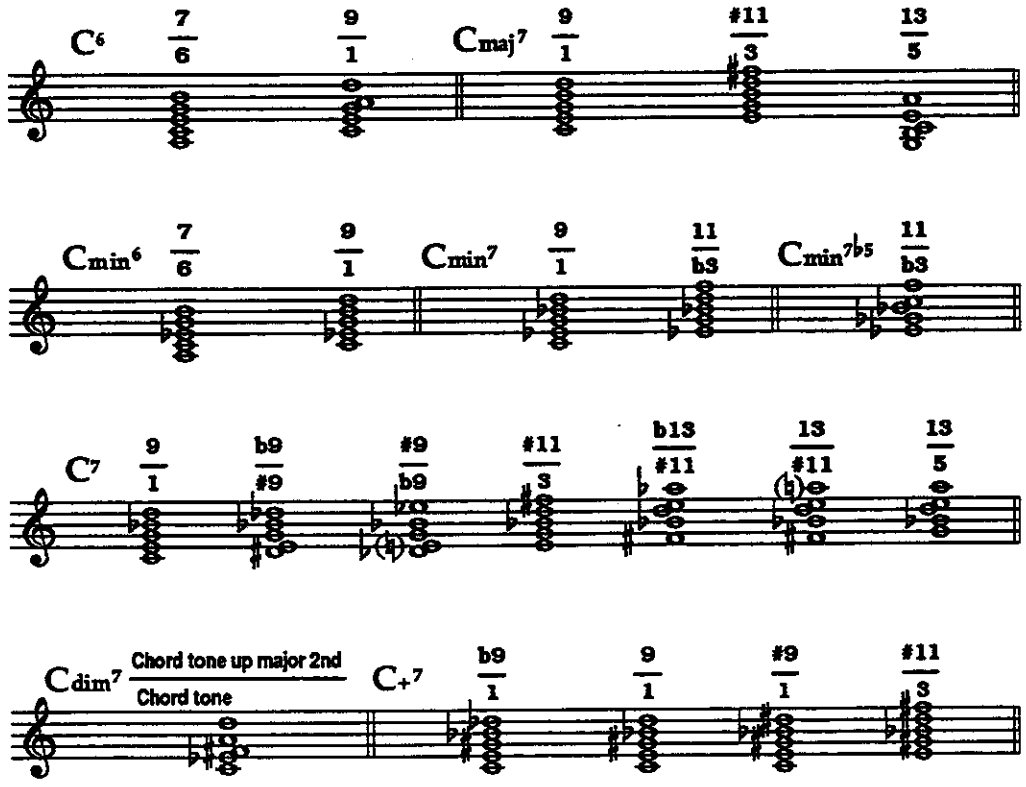


b. Tension in lead

Major 6th	chord	:	$\frac{7}{6}$ $\frac{9}{1}$
Major 7th	"	:	$\frac{9}{1}$ $\frac{\#11}{3}$ $\frac{13}{5}$
Minor 6th	"	:	$\frac{7}{6}$ $\frac{9}{1}$
Minor 7th	"	:	$\frac{9}{1}$ $\frac{11}{b3}$
Minor 7th b5	"	:	$\frac{11}{b3}$
Dom. 7th	"	:	$\frac{9}{1}$ $\frac{b9}{\#9}$ $\frac{\#9}{b9}$ $\frac{\#11}{3}$ $\frac{b13}{\#11}$ $\frac{13}{\#11}$ $\frac{13}{5}$
Dim. 7th	"	:	$\frac{\text{Chord tone up major 2nd}}{\text{Chord tone}}$
Aug. 7th	"	:	$\frac{b9}{1}$ $\frac{9}{1}$ $\frac{\#9}{1}$ $\frac{\#11}{3}$

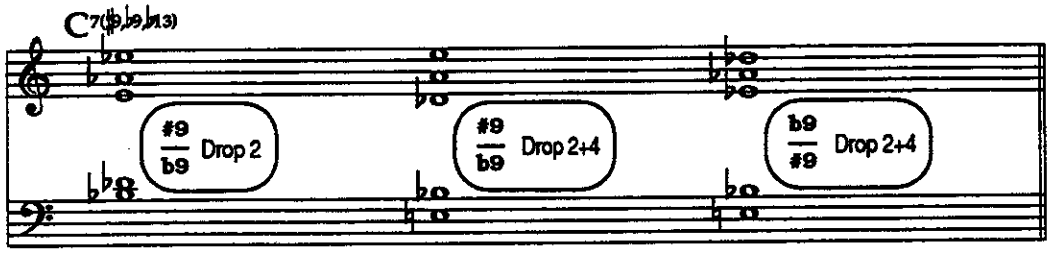
See Example III.

Ex. III



Special Case Voicings As a point of interest, some special case open voicings are shown in Example IV. They are offered in this way because their construction cannot be systematized. Proper handling of these and other special case structures requires advanced understanding of harmony.

Ex. IV

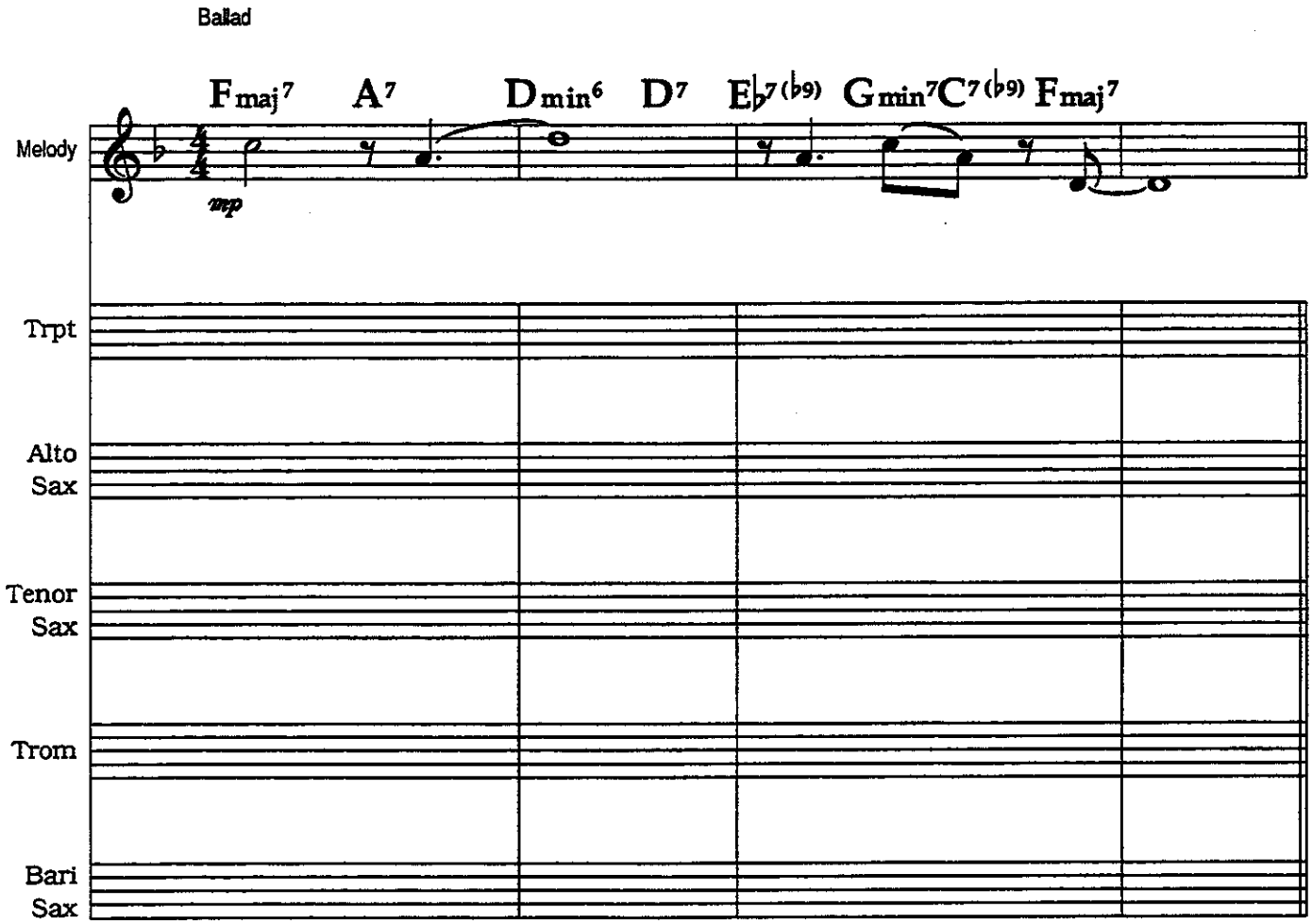


Continuous use of five-note voicings may be judiciously applied to appropriate jazz passages. This should be considered an advanced technique which is to be applied only after the student's skill and musical taste have been sufficiently developed so as to avoid abuse of the method.

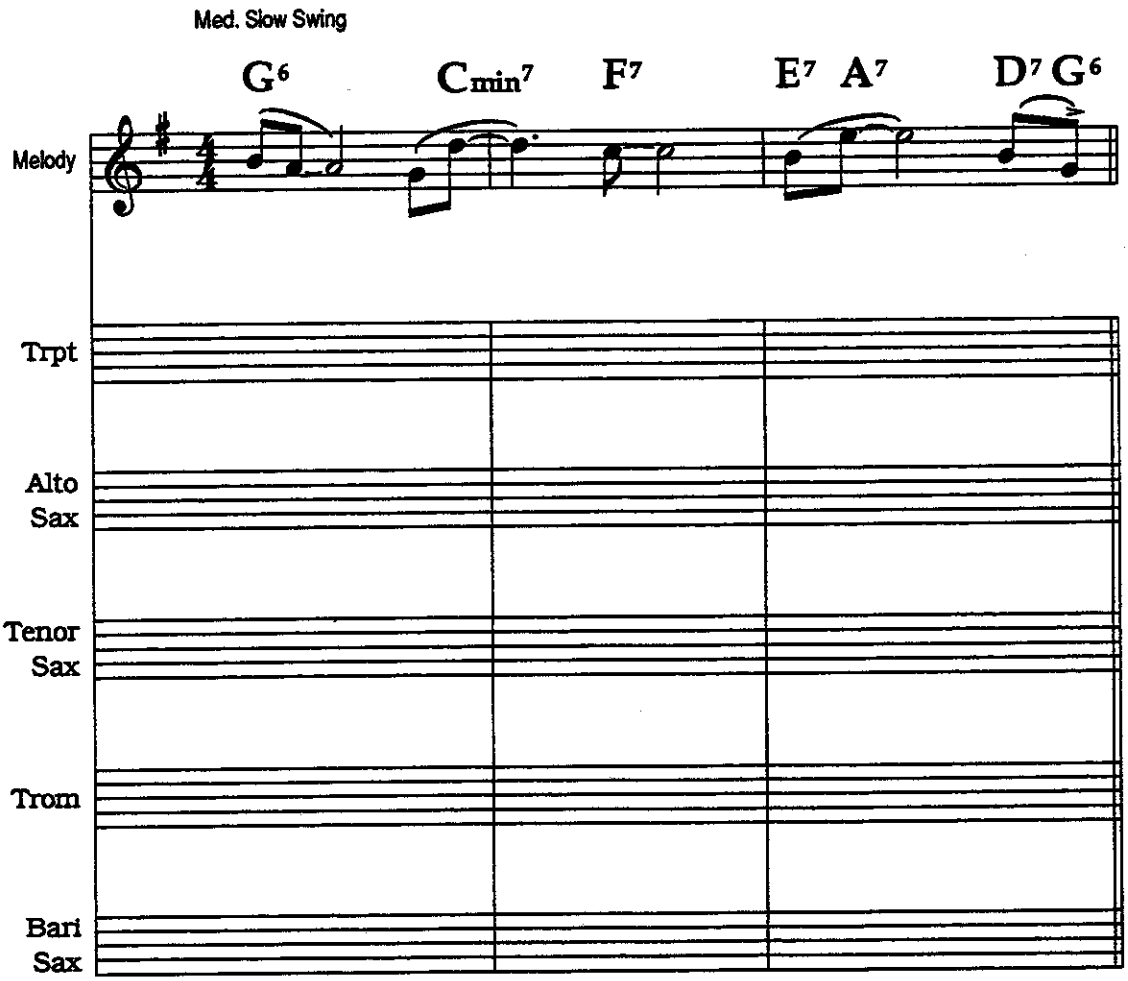
General Comments Five-note voicings are not intrinsically "better" (or "worse") than voicings containing different numbers of tones. Like every other device, they are good when they are appropriate, and vice versa.

CHAPTER ELEVEN
HOMEWORK

A. Arrange the following melody using five-note voicings, close position. You may write in concert or transposed.



B. Arrange the following melody using five-note voicings derived from drop 2. You may write in concert or transposed.



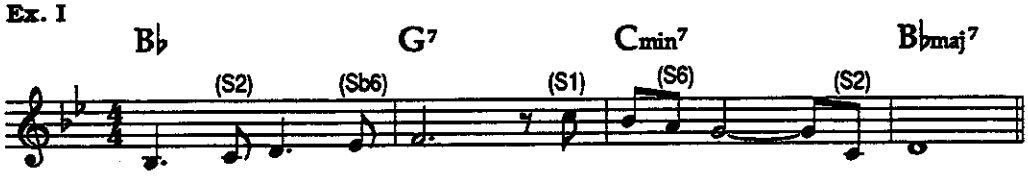
CHAPTER TWELVE
APPROACHES

Identification of Approach Notes (A brief review)

An approach note is part of the melody. It has a duration of a quarter note or less. It moves stepwise to a target note, which may be a chord tone or tension.

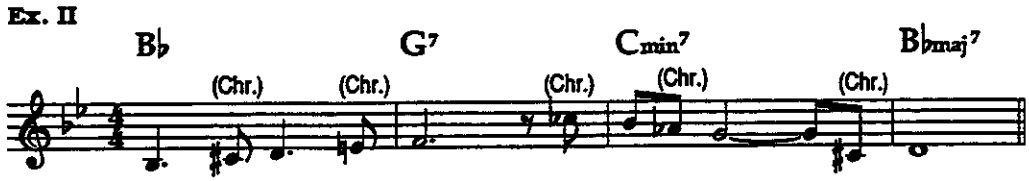
A Scale Approach, also known as a Diatonic Approach, is diatonic to the key or to the current harmonic situation (in which the chord progression suggests a key other than that in the signature). The scale approach moves to its target by a whole or half step, whichever is applicable. It is labeled according to its distance from the root of the chord which applies *to that target.* See Example I.

Ex. I



A Chromatic approach is usually nondiatonic and moves by a half step to its target. See Example II.

Ex. II



Approach notes occur in the following patterns:

1. Passing Tone; passes stepwise between two different pitches.

2. Auxiliary Tone (also known as Neighbor Tone); moves away from and back to the same pitch; motion of the pattern may be down and return (Lower Auxiliary) or up and return (Upper Auxiliary).

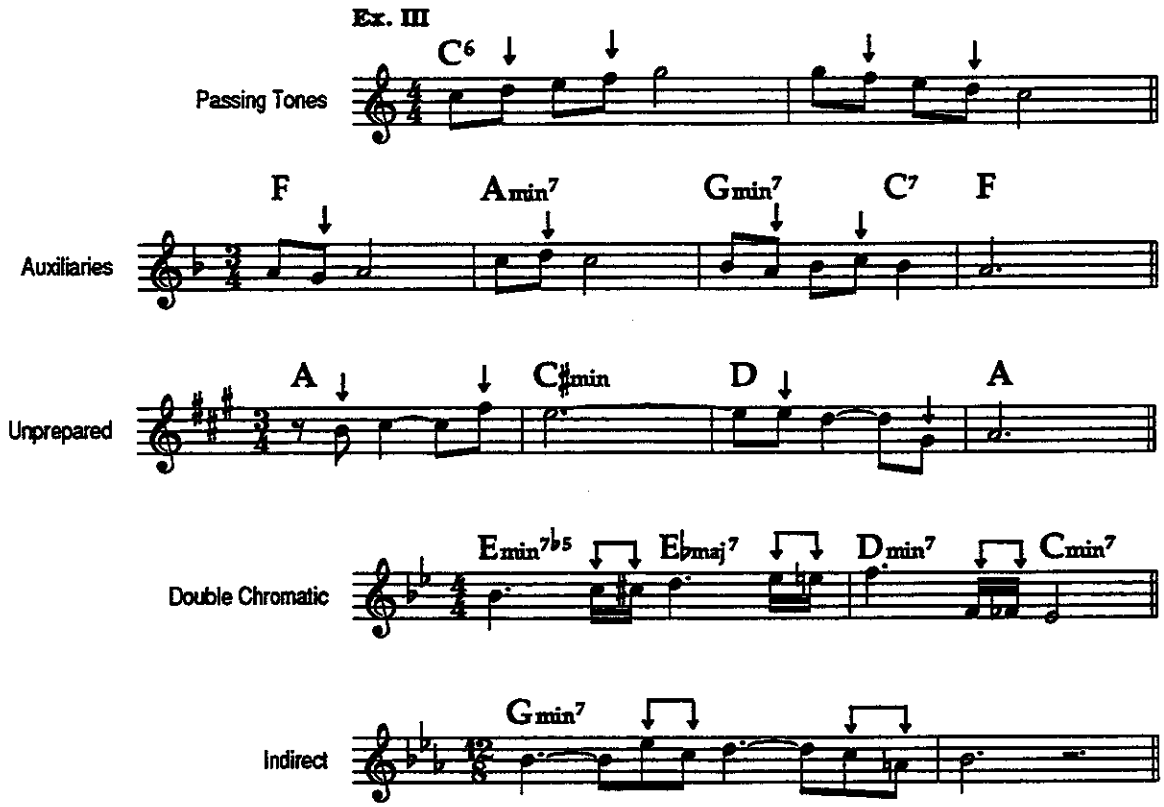
3. Unprepared; is preceded by a rest, a leap or the same (its own) pitch.

4. Consecutive Approaches; consist of an uninterrupted series of two notes of equal duration. The consecutive approach patterns are Double Chromatic and Indirect Resolution.

   a. A Double Chromatic Approach consists of two notes which move to their target by consecutive half steps in the same direction.

   b. An Indirect Resolution consists of two consecutive notes which move to their target from opposite directions; they may be any combination of diatonic and/or chromatic approaches.

Example III (next page) illustrates all of these patterns.



Reharmonization of Approach Notes

Melody notes identified as approaches are reharmonized in order to give the under voices lines which are compatible with the motion in the lead.

Whenever a choice of reharmonization techniques exists, discard one which results in giving any under voice the same pitch in the approach voicing that it has in the target voicing. This is important because it is often difficult for wind players to match the articulation of a moving lead line when their harmony parts include repeated notes.

Chords resulting from the reharmonization of approach notes resolve so quickly into the harmony of the target note that the ear is not bothered by their being "in conflict" with the basic harmony of the passage. Therefore, unless the tempo is extremely slow, those passing chords are not reflected in the rhythm section parts.

There are various methods of approach reharmonization available. The appropriateness of each is determined by the analysis of the approach notes to be harmonized and by the discretion (taste) of the arranger.

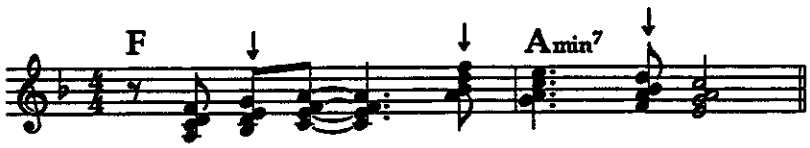
In all methods of approach reharmonization, ***the first step is to voice the target note.*** Only after that has been done can voicing of the approach notes be considered. You must know where you are going before you can determine how to get there! The student may wish to think of this process as "working backward."

The following reharmonization techniques may be considered standard:

1. Diatonic (or Scale)
2. Chromatic
3. Double Chromatic
4. Parallel
5. Dominant
6. Indirect (draws from the first five)

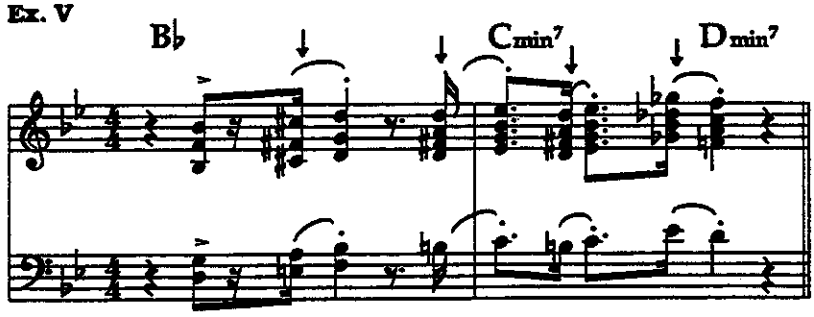
Diatonic Approach Reharmonization works best when both the melody and the harmony are diatonic to the key or to the current harmonic situation. In this method each under voice moves one diatonic step into its note in the target voicing. See Example IV.

Ex. IV



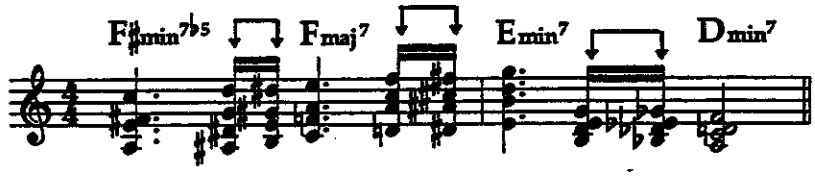
Chromatic Approach Reharmonization is used to voice a chromatic approach note, regardless of key or tonality. In this method each under voice moves one half step into its note in the target voicing. See Example V.

Ex. V



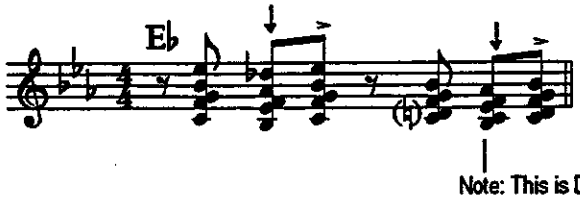
Double Chromatic Approach Reharmonization is used to voice double chromatic approach notes. In this method each under voice takes a double chromatic approach to its note in the target voicing. See Example VI.

Ex. VI



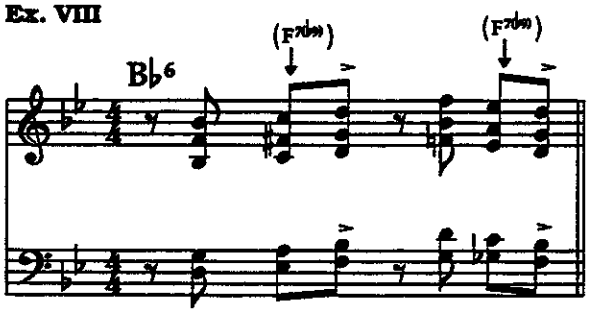
Parallel Approach Reharmonization may be used to voice any kind of approach note. It is the best way to reharmonize approaches which lead to a target note harmonized as a diminished 7th. In this method each under voice moves the same number of semitones into its note in the target voicing, as does the lead. (It should be obvious that chromatic reharmonization is a form of parallel reharmonization.) See Example VII.

Ex. VII.



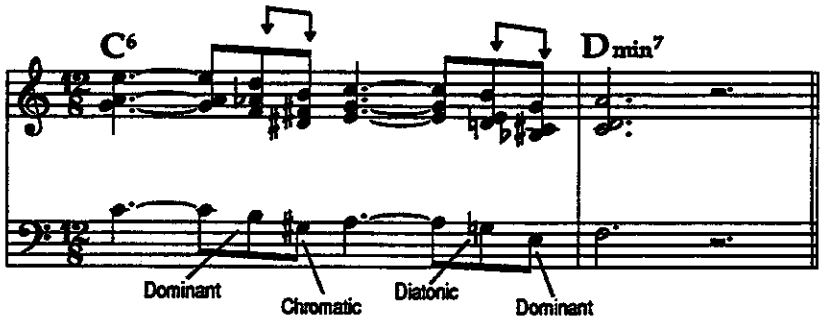
Dominant Approach Reharmonization involves voicing the approach note with a dominant 7th chord which is the V7 of the target chord. The approach note must be a chord tone of that V7 or one of its tensions. The V7 chord may be "pure" or altered, whichever prevents repeated notes in any under voice; however, V7b9 is used most commonly. See Example VIII.

Ex. VIII



Indirect Approach Reharmonization is used to voice indirect approach notes. The technique involves the reharmonization of each approach note as though it were the only one. The two approaches may or may not be similarly reharmonized. See Example IX.

Ex. IX



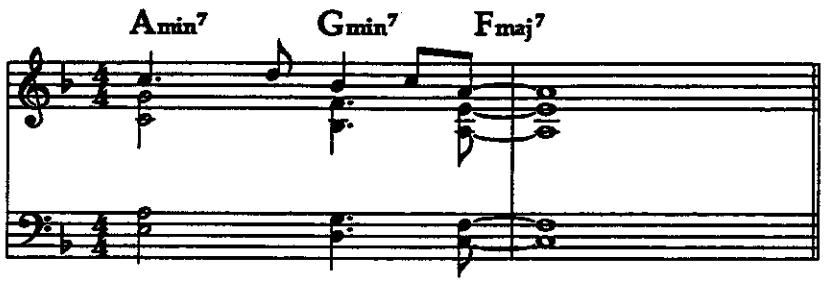
Independent Lead

Independent lead offers an alternative to the reharmonization of approach notes. It is neither better nor worse as a solution to the handling of approaches; it is merely an alternative which provides a different sound.

In this method the under voices sustain (or sometimes rest) while the lead moves.

Independent lead works well where a little less feeling of "drive" is acceptable, and for pickups. See Example X.

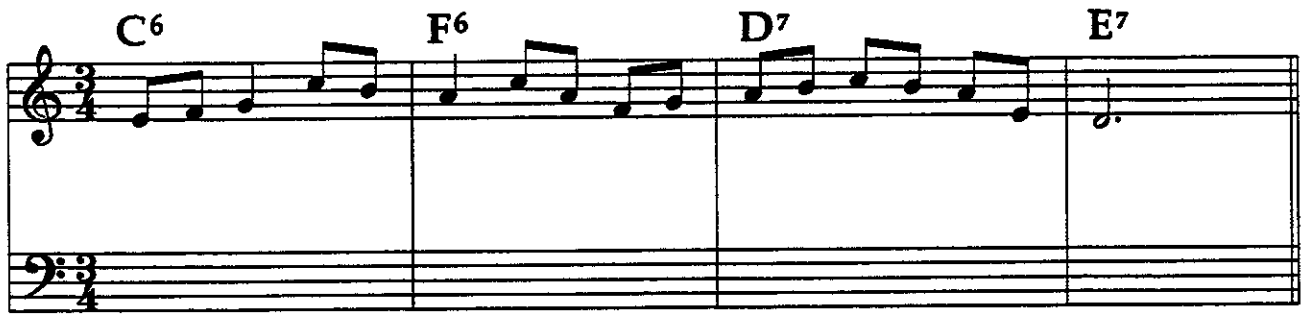
Ex. X



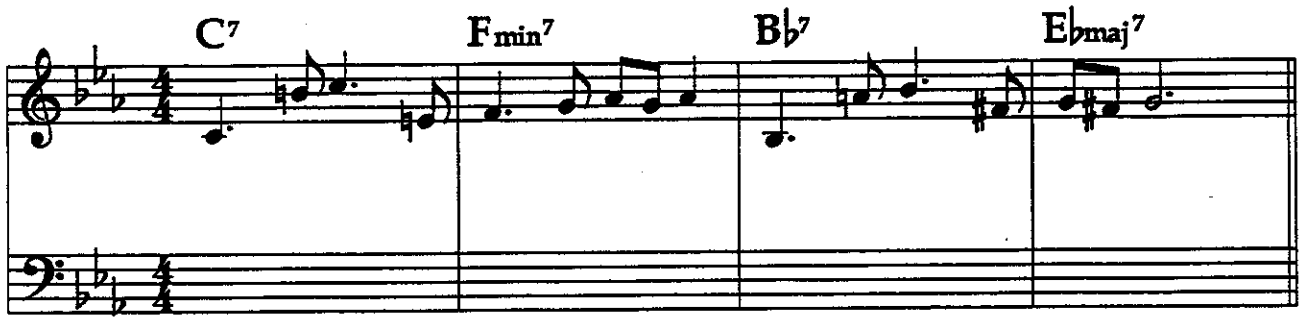
CHAPTER TWELVE
HOMEWORK

Harmonize each of the following melodies in four-way close, using closed score format. Identify each approach note with a small arrow and reharmonize it appropriately, according to instructions.

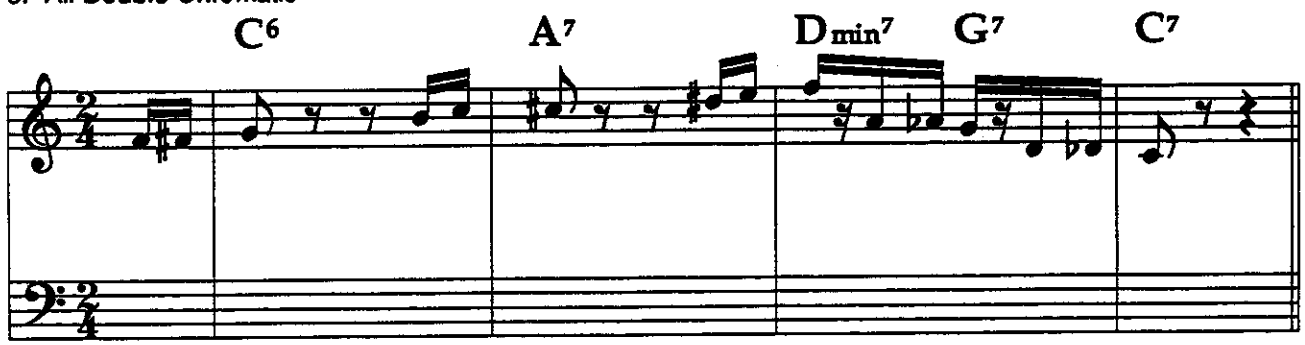
1. All Diatonic



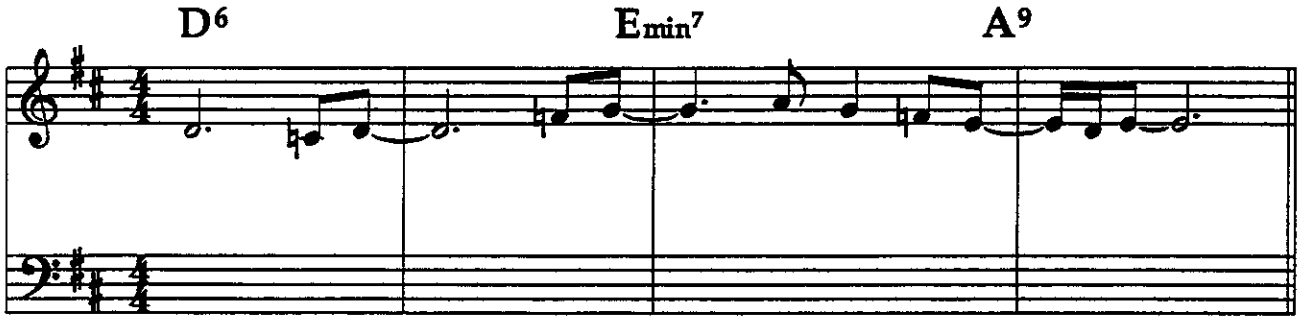
2. All Chromatic



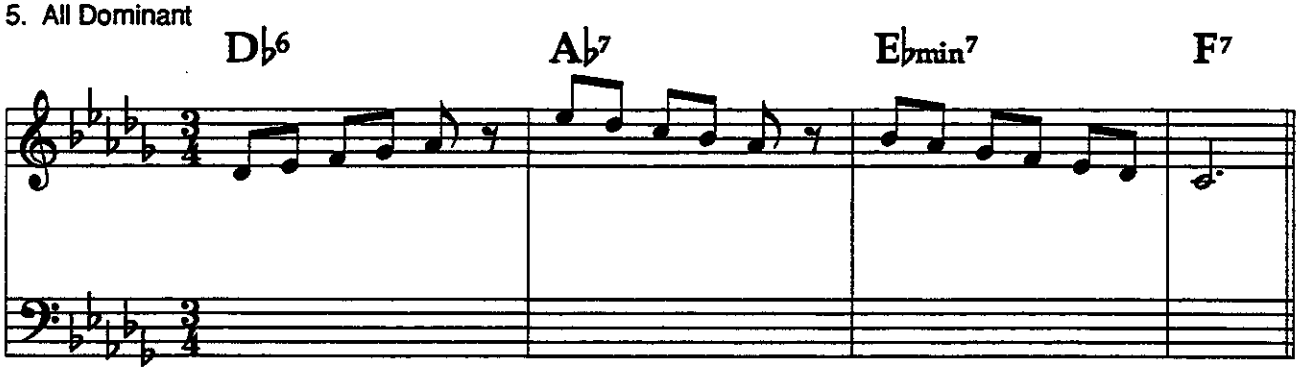
3. All Double Chromatic



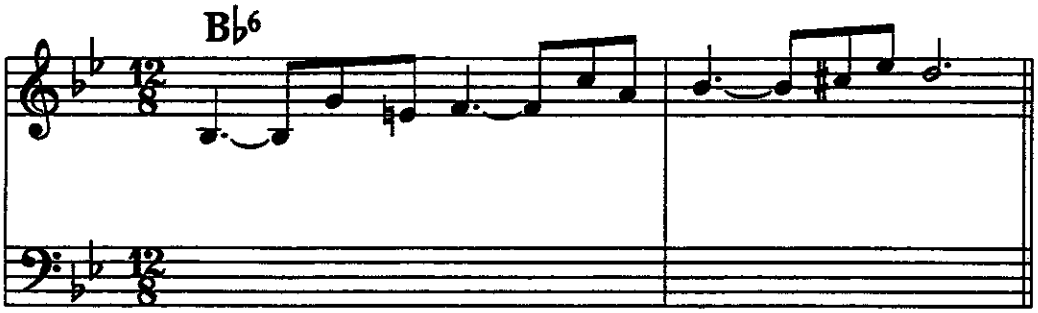
4. All Parallel



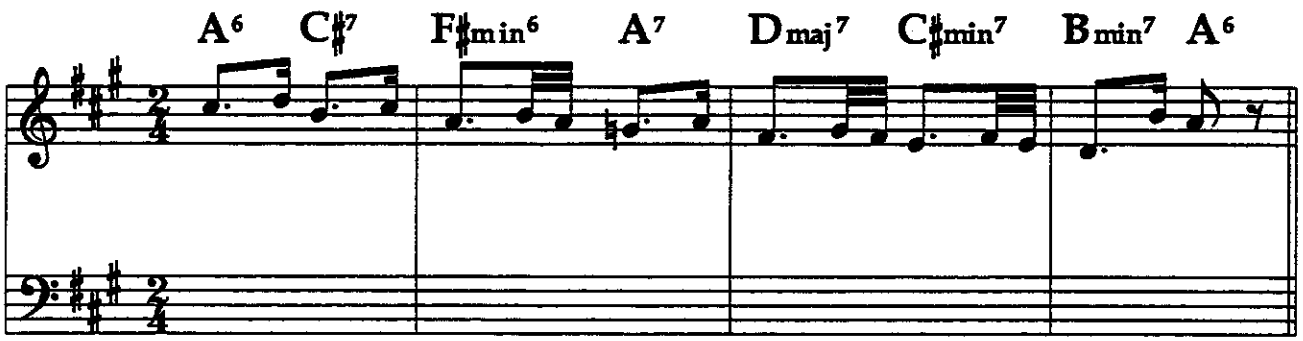
5. All Dominant



6. Indirect Approaches



7. Use Independent Lead Technique



CHAPTER THIRTEEN
SPREAD VOICINGS

Spread voicings give the richest sounds of any of the harmonization techniques discussed in this course. They are characterized by the comparatively wide intervals which make up part of their structure. They are often used in the harmonization of backgrounds and of percussive or relatively inactive melody lines.

When writing spread voicings, the student must be particularly concerned that the notes given to each instrument allow it to balance and blend with the other instruments. A review of the chapter on Instrumentation may be helpful in this respect.

Constant attention must be paid to Low Internal Limits as well as to the restriction regarding the flat 9 interval, as mentioned under "Drop 2" in the chapter on Four-Part Soli.

(Eventually the diligent and talented arranger will be able to write with little or no *conscious* attention to rules. However, those rules, in one form or another, must first be firmly established in the mind.)

Spreads allow more opportunity for creativity *and* for error than the standard voicings which were discussed earlier. Therefore, the student is advised to heed well the information and limitations which appear in this chapter. They will help provide safe passage through the somewhat mysterious land of Spread Voicings.

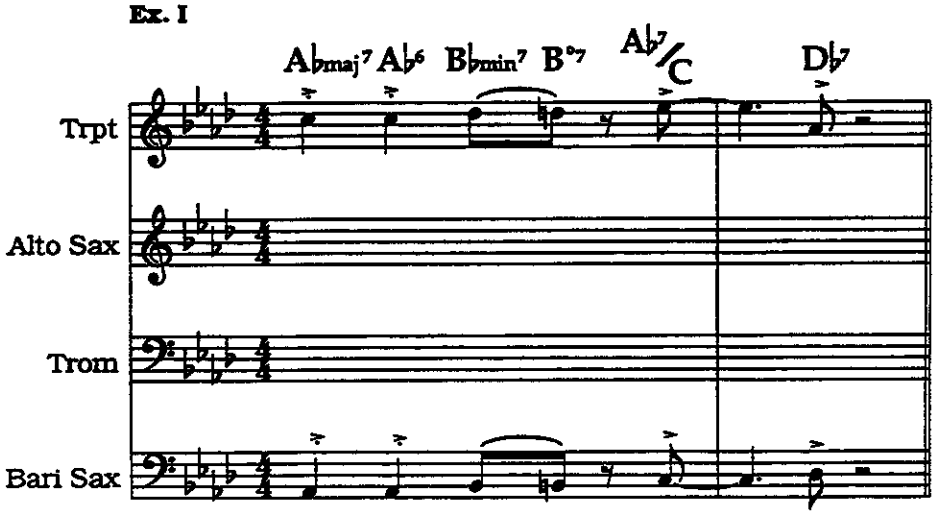
Four Part Spread with Given Lead

Assign the lead line, in its entirety, to the top voice. Then harmonize according to the following procedure.

The root of the chord is given to the lowest voice unless the chord symbol indicates an inversion, in which case that voice receives the bottom note called for in the inversion.

Write the bottom voice's line for the entire passage before filling in the middle parts. When practical, create contrary motion between the bottom line and the lead. See Example I.

Ex. I



Doubling of any two voices (in unison or with octave adjustment) should not be done unless necessitated by the given lead, and/or a triadic sound is desired. (Triadic spreads are discussed later in the chapter.)

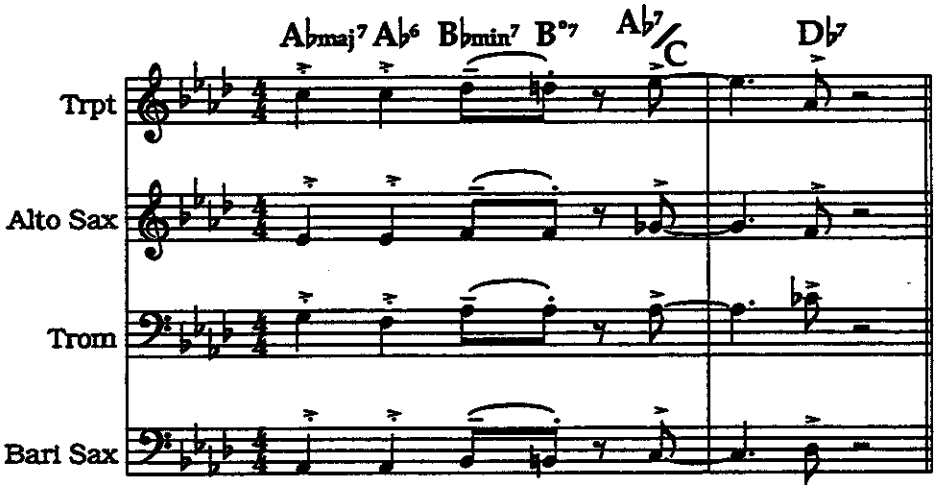
The intervals most typically occurring between the two lowest voices are the perfect 5th, the major, minor, or diminished 7th, and the major or minor 10th. These bottom intervals tend to characterize the sound of the spread voicing, especially when the chord is in root position.

The interval between the two lowest voices *may*, however, span any distance from a minor 3rd (beware LIL!) up to a 10th (although this may occasionally be stretched to a 12th or more). The interval between any two of the upper voices can be as small as a minor 2nd or as large as a major 7th. (Exception: minimum distance between lead and second voice should be major 2nd.)

The middle two voices are usually assigned one of the following pairs of chord tones. (Either tone may go to either voice.)

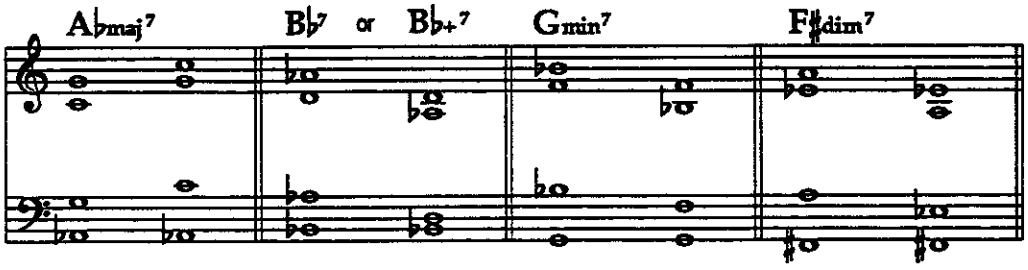
a. 7 & 3 (10)
b. 5 & 3 (10)
c. 6 & 3 (10)
d. 5 & 6
e. 5 & 7 See Example II.

Ex. II



An exception to the warning against octave doublings exists in the case of any kind of 7th chord, in root position. When the 3rd or the 7th is in the lead, the 5th may be omitted and the lead doubled an octave lower by the third (next to bottom) voice; the remaining chord tone is assigned to the second voice. See Example III.

Ex. III



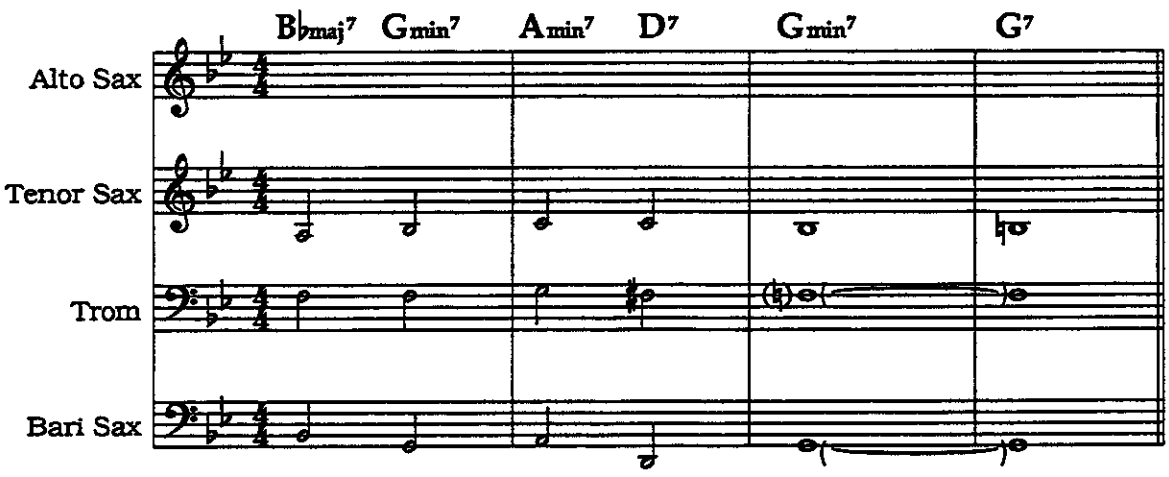
Four Part Spread Backgrounds (no given lead)

Harmonic backgrounds are created by the arranger to provide support for the other instrument(s) or voice(s) which may be carrying the lead.

Start by assigning roots (or other bottom notes, if inversions are indicated) to the lowest voice.

Next, give appropriate chord tones to the middle two voices. Whenever possible, these parts should be voice led as guide tones[1] (i.e., moving stepwise or functioning as common tones). (Refer to list preceding example II.) See Example IV.

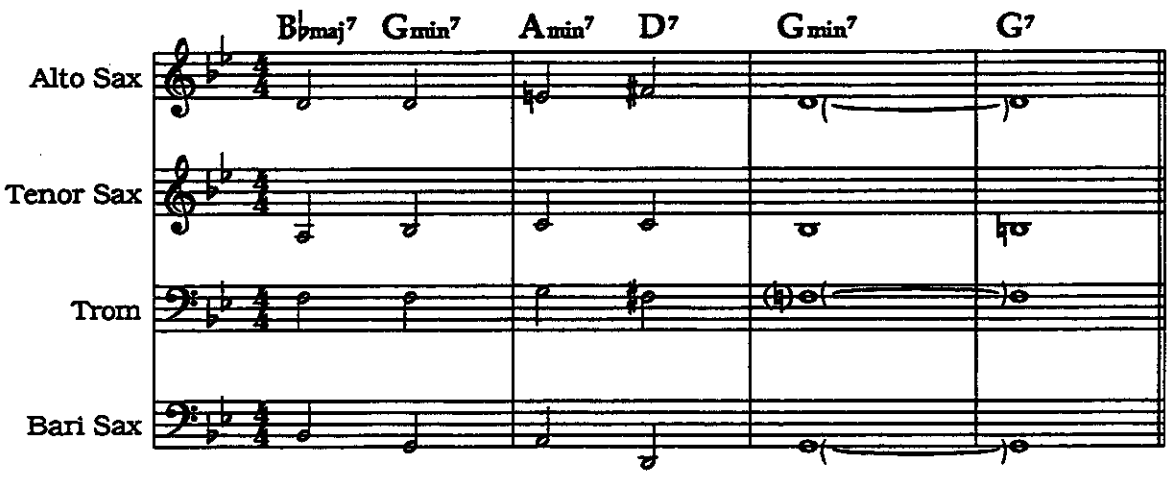
Ex. IV



Note: Common tones may be tied or reiterated.

Finally, the top voice is assigned the remaining chord tone. See Example V.

Ex. V



Note that most four part spreads work well using only chord tones. However, circumstance (artistic or practical) sometimes suggests the inclusion of an available tension.

If a tension is used in a four part spread, that tension should

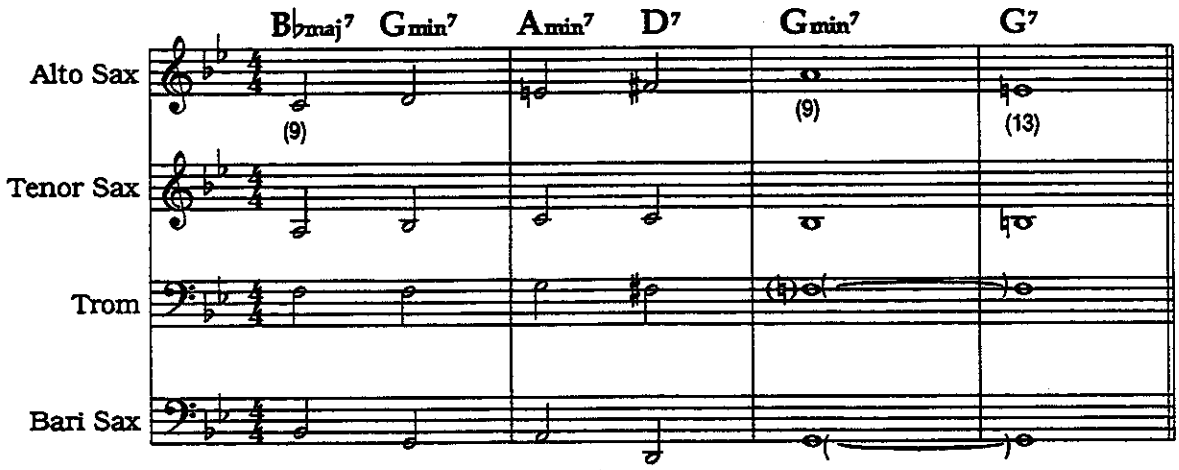
a. be chosen very carefully, and

b. normally be given to the top voice.

See Example VI.

[1] See chapter seventeen.

Ex. VI

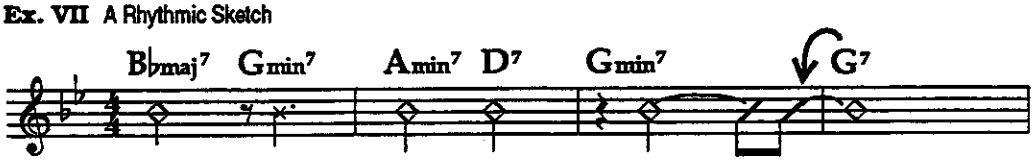


Interest may be added to a background by delaying or anticipating some of the voicings in relation to the given chord progression. This rhythmic manipulation can be worked out by sketching a pattern of attacks and durations between writing the notes. Some students may wish to accomplish the same thing while working out the voicings, thereby eliminating the rhythmic sketch.

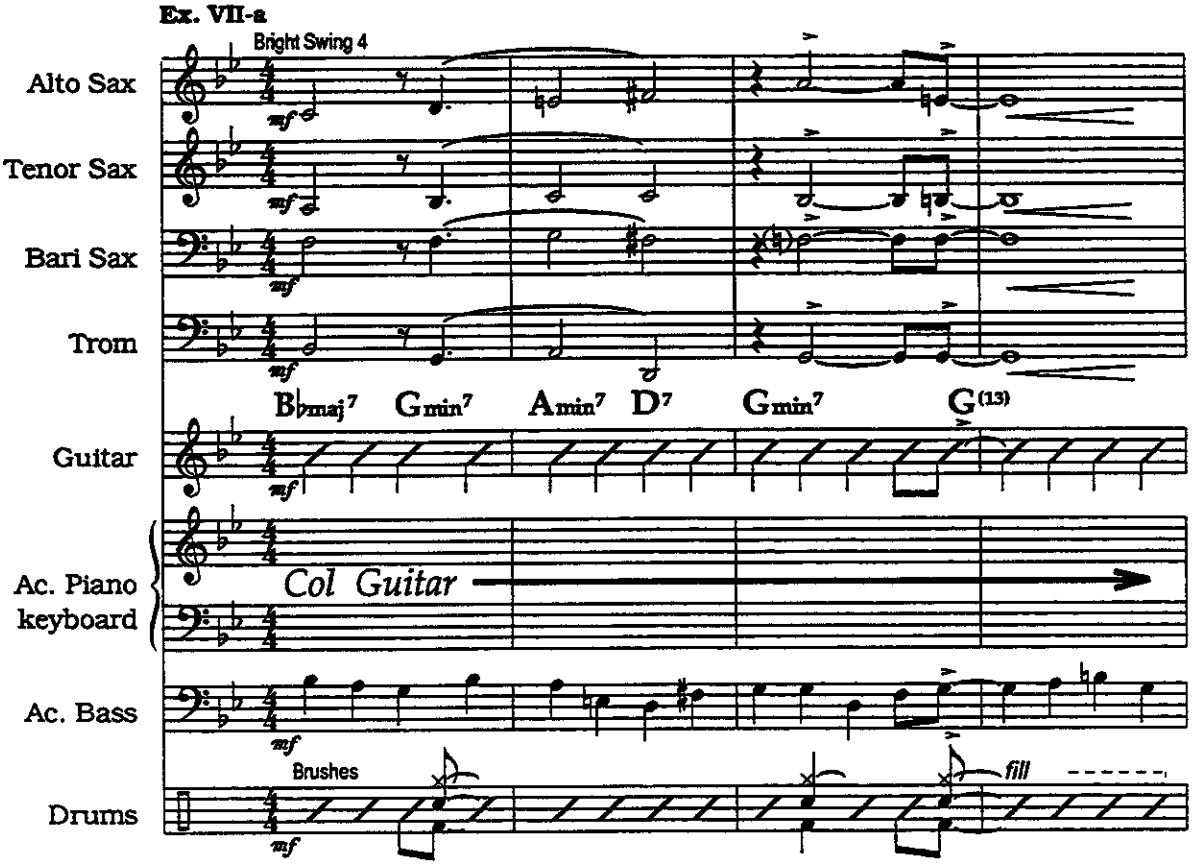
Careful consideration must be given to whether or not the rhythm section should "catch" any of these anticipations or delays.

See Examples VII and VII-a.

Ex. VII A Rhythmic Sketch



Ex. VII-a



Spread Voicings, pg. 80

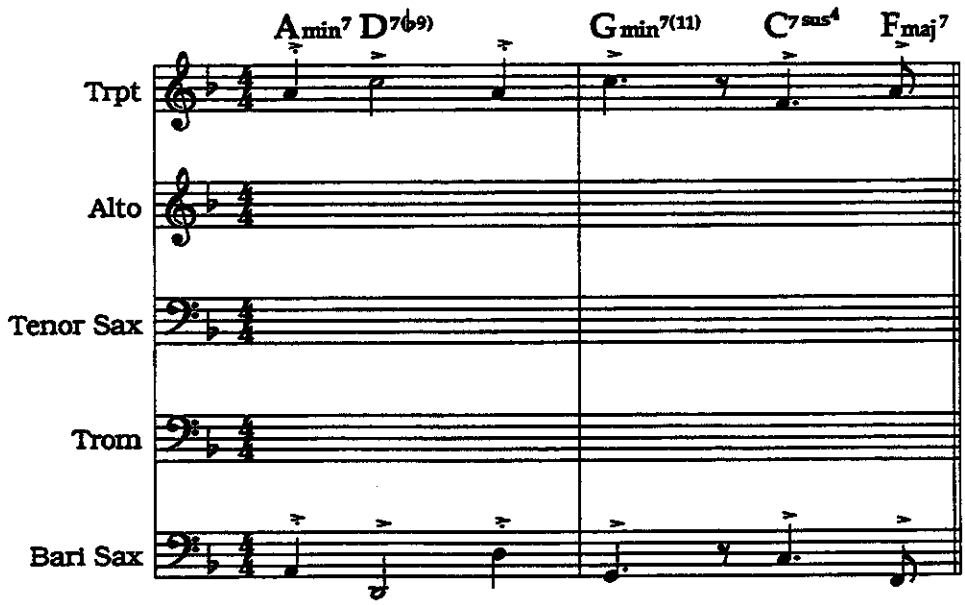
Five Part Spread with Given Lead

A simple (yet effective) way of writing five part spreads with a given lead is to create a four part spread under each melody note, using the following procedure.

1. Give the entire melodic phrase to the top voice.
2. Heeding the suggestions already stated in the discussion about four part spreads, construct an appropriate line for the bottom voice.
3. Combine the remaining three voices with the bottom to create four part spreads, taking care that no under voice gets any closer to the lead than a major 2nd.

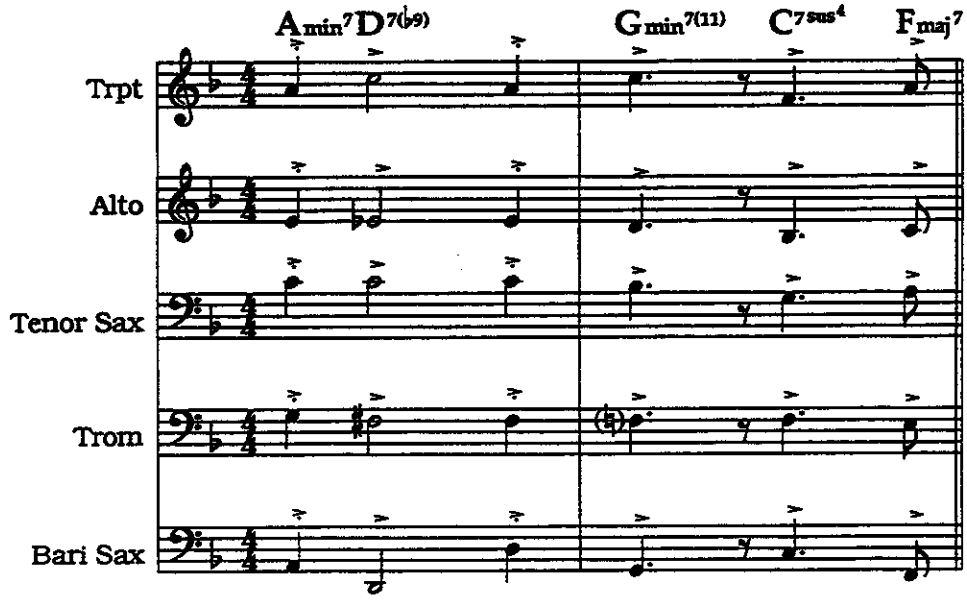
Note: If a four note chord is desired, octave doubling may occur between the lead and one of the under voices. If the symbol calls for a five part chord, all five notes may be used. See Examples VIII and VIII-a.

Ex. VIII



Note contrary motion between trumpet and baritone

Ex. VIII-a



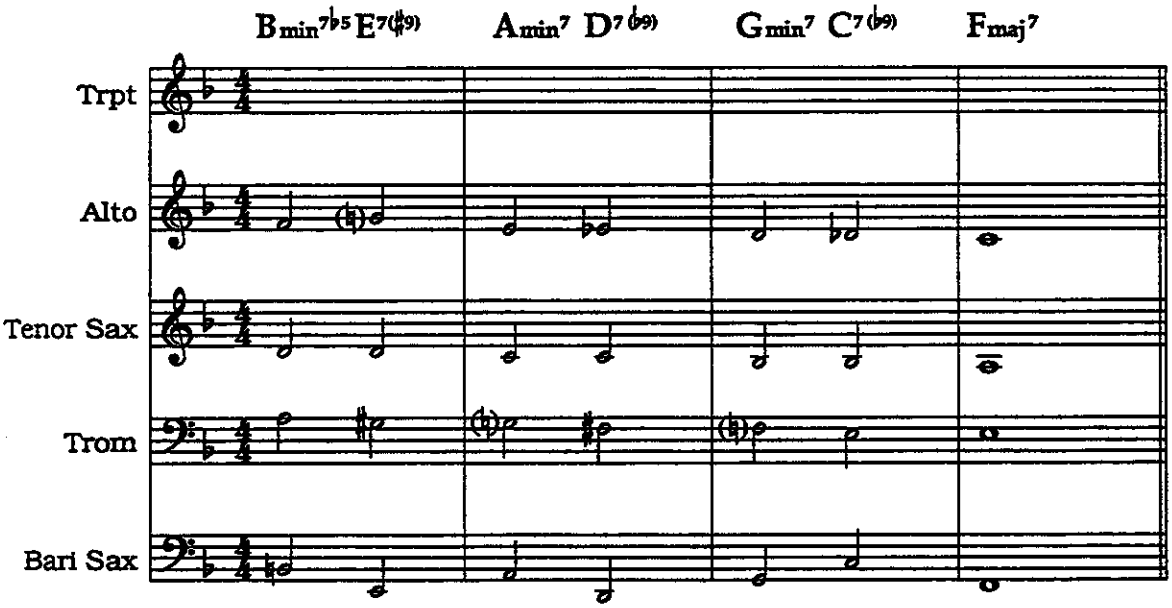
Five Part Spread Backgrounds (no given leads)

One way to voice a five part spread with no given lead is to follow these steps:

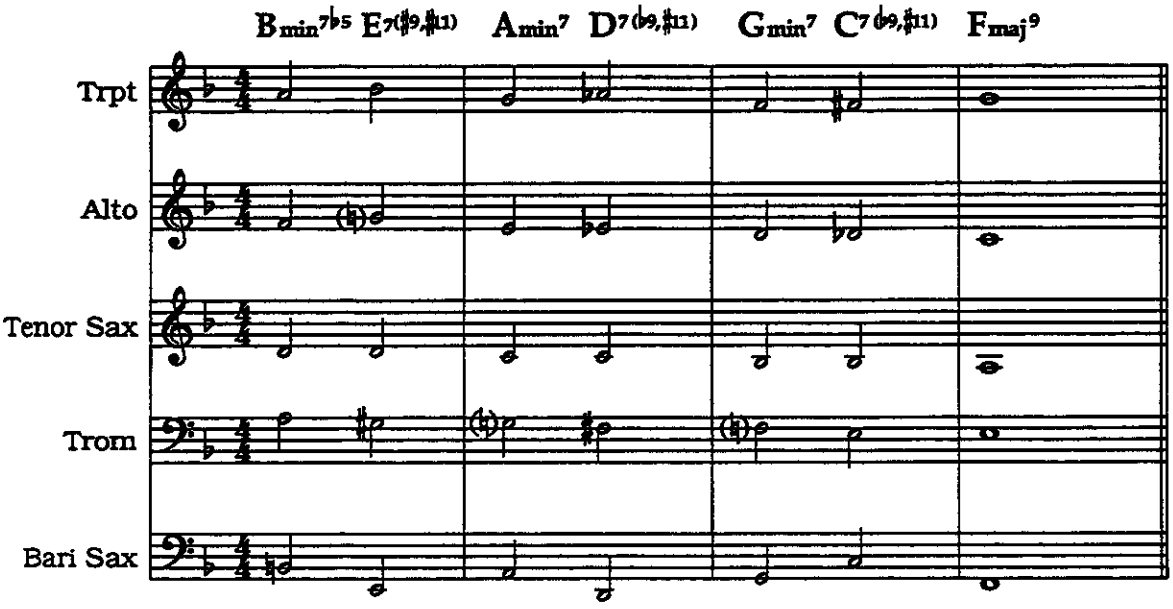
1. Create a four part spread using the bottom four voices.
2. Give the remaining voice an appropriate note. Be sure it is higher than the others in that voicing. It may be given a fifth note (chord tone or available tension) or it may double another voice (with octave adjustment).

See Examples IX and IX-a.

Ex. IX



Ex. IX-a



Another method involves starting with a Three Part Spread, utilizing the three lowest voices.

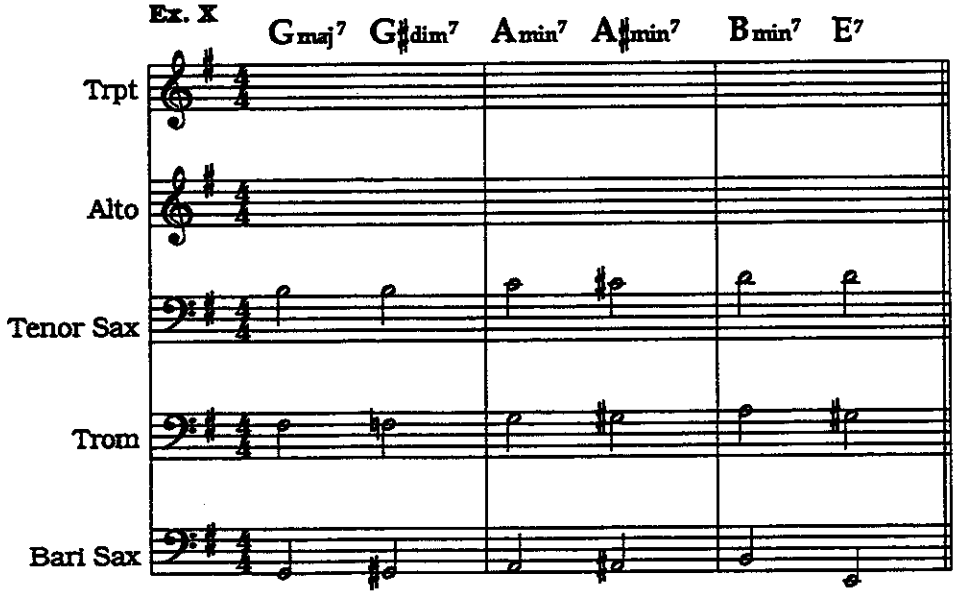
The function of a three part spread is to make a very clear harmonic statement with a minimum number of notes. The following list, showing groups of chord tones in ascending order, contains the most common constructions of three part spreads.

a. 1,5,3 (10) or 1,3 (10), 5
b. 1,7,3 (10) or 1,3 (10), 7
c. 1,6,3 (10) or 1,3 (10), 6

If an inversion is indicated, the three part spread is usually made up of intervals of fifths and/or sixths.

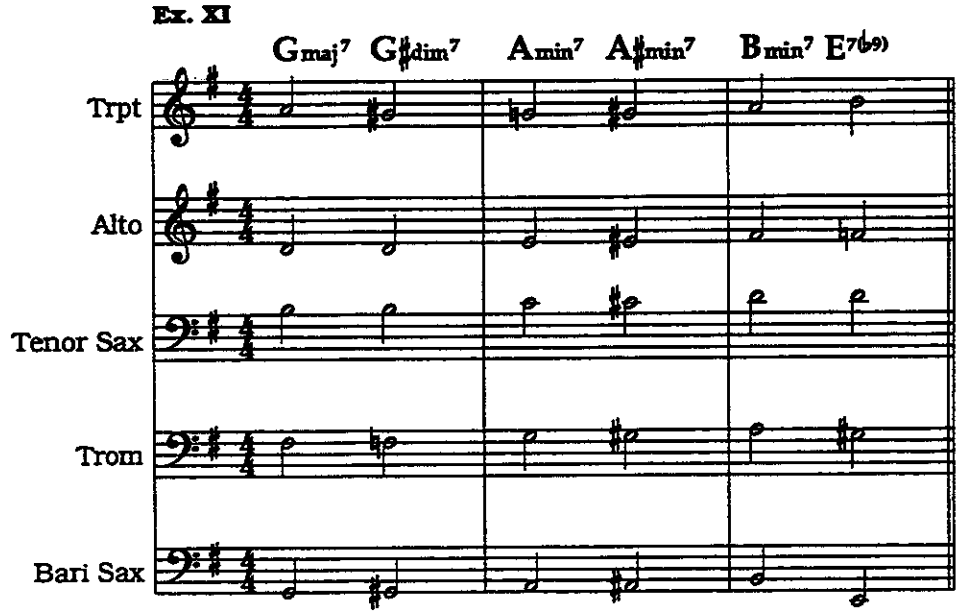
d. 3,1,5
e. 5,3,1
f. 7,3,1 (works only with flat 7, because of flat 9 internal restriction)

Ex. X



To complete the five part voicing built over a three part spread, assign each of the remaining two voices a chord tone or an available tension. It is a good idea to give at least one of these parts an unused chord tone. See Example XI.

Ex. XI



Triadic Spreads These voicings, which contain only 1,3 and 5 of a chord, may be written for three or more parts. All three chord tones must be utilized in any triadic voicing.

The interval between the lowest two voices should be no smaller than a fifth.

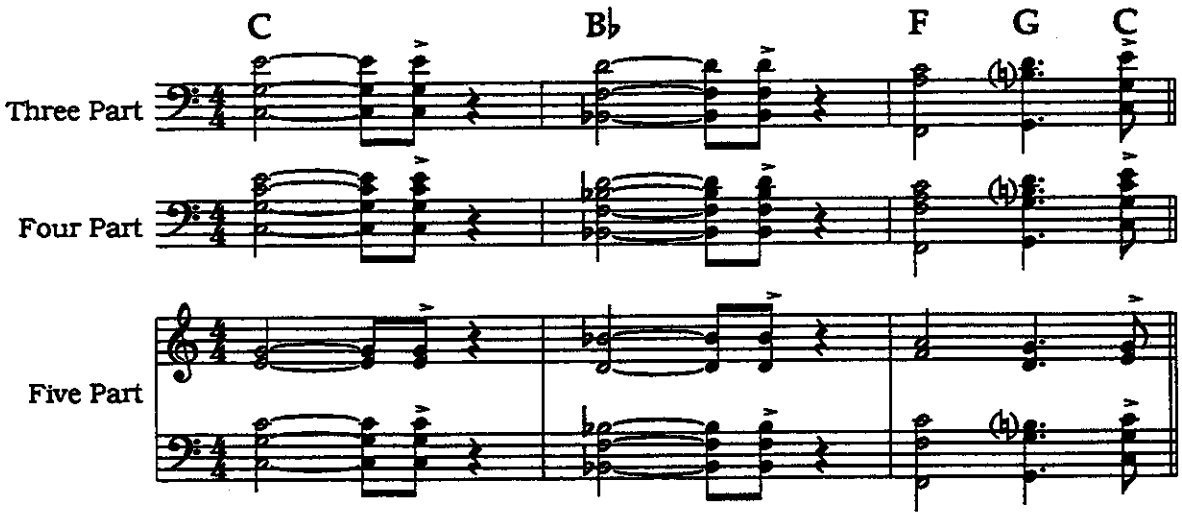
It should be obvious that in three part spreads there can be no doubling.

In four part spreads it is more common to double the root or fifth than the third.

In five part spreads no more than one doubling of the third should occur.

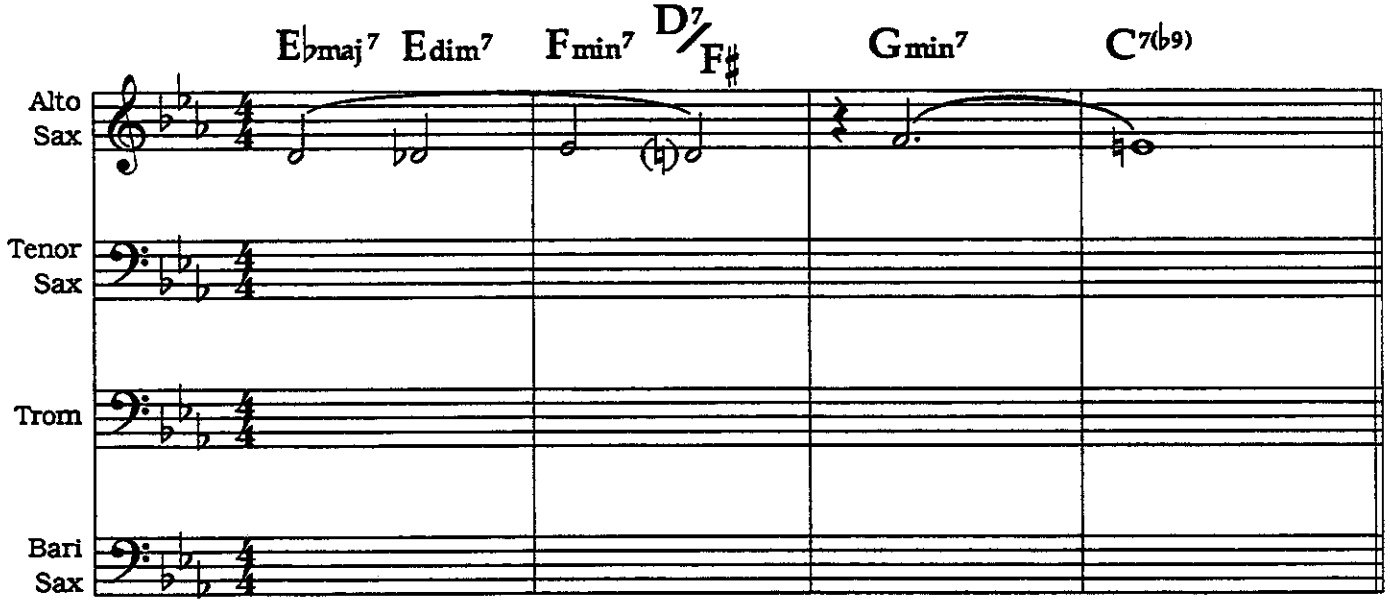
See Example XII

Ex. XII

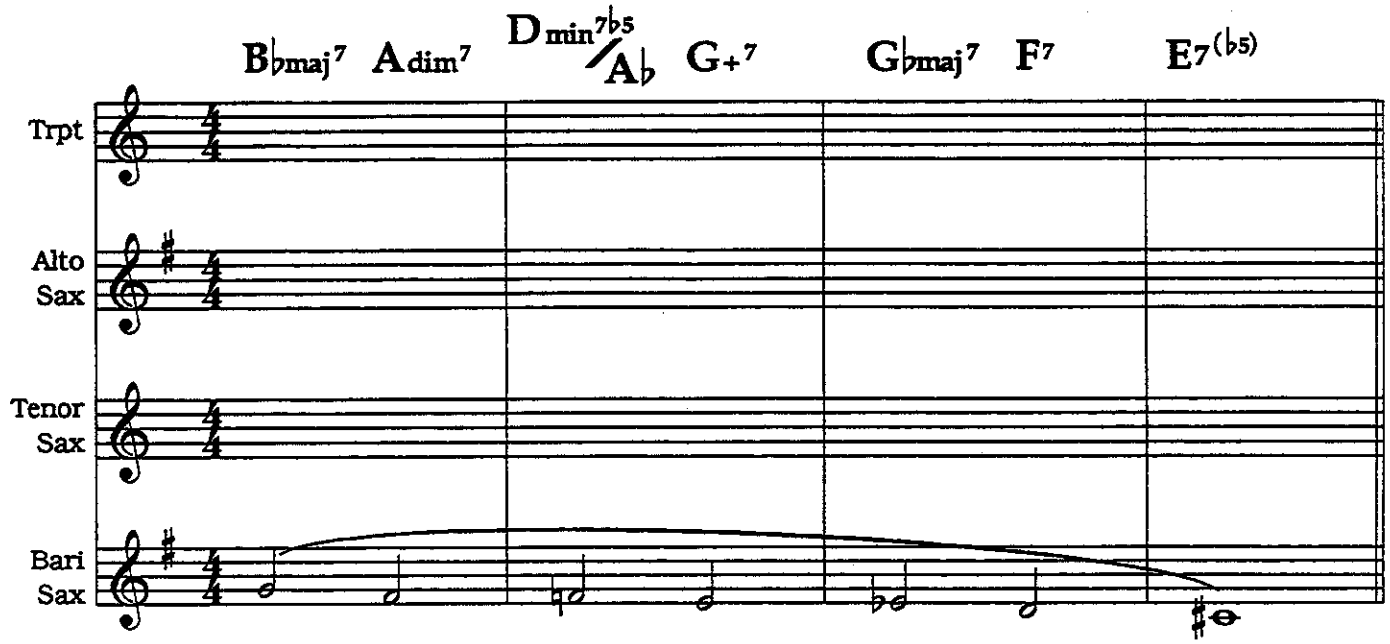


CHAPTER THIRTEEN
HOMEWORK

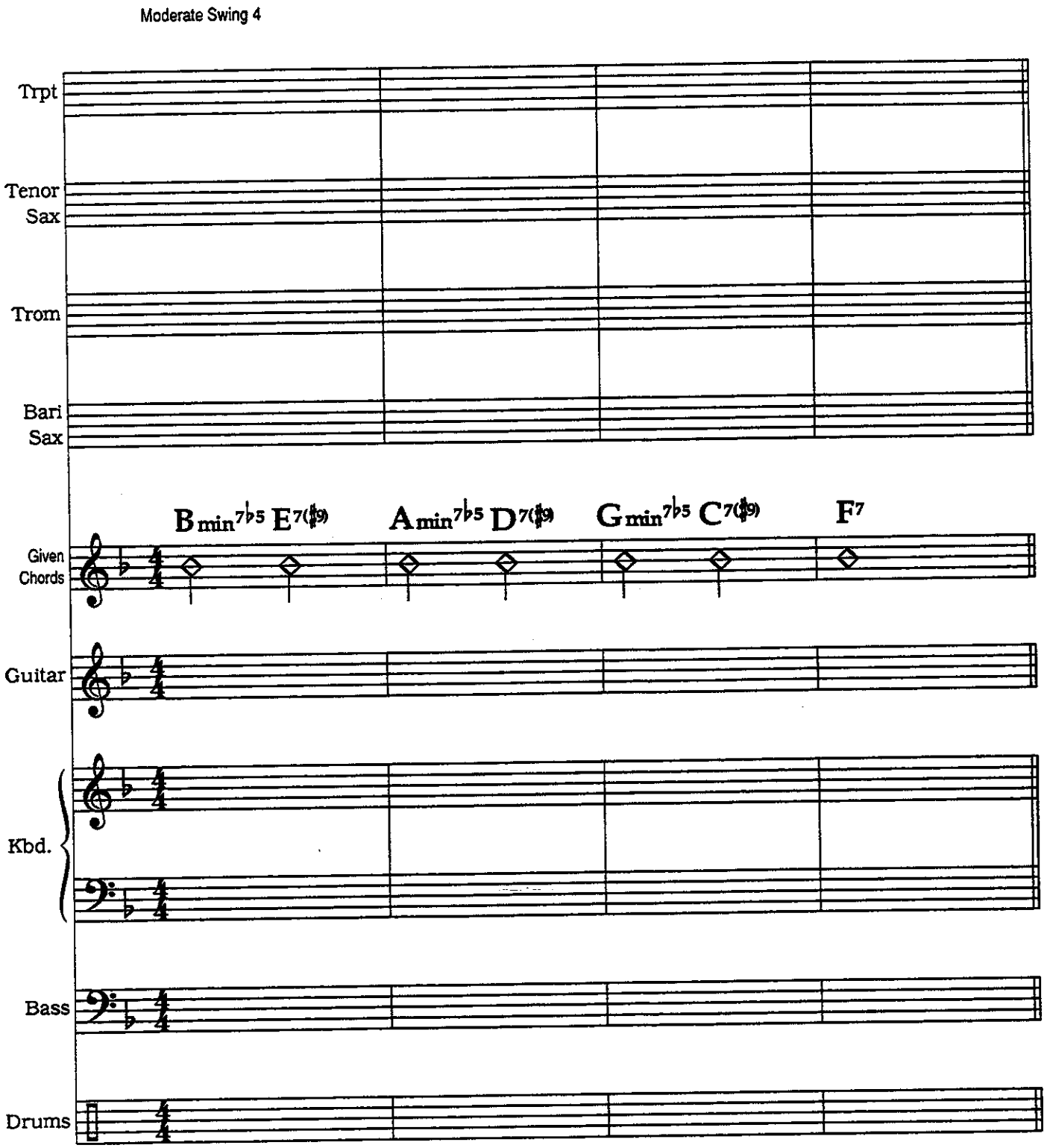
A. Harmonize the given lead so that the resultant voicings are four part spreads. Write your score in concert key.



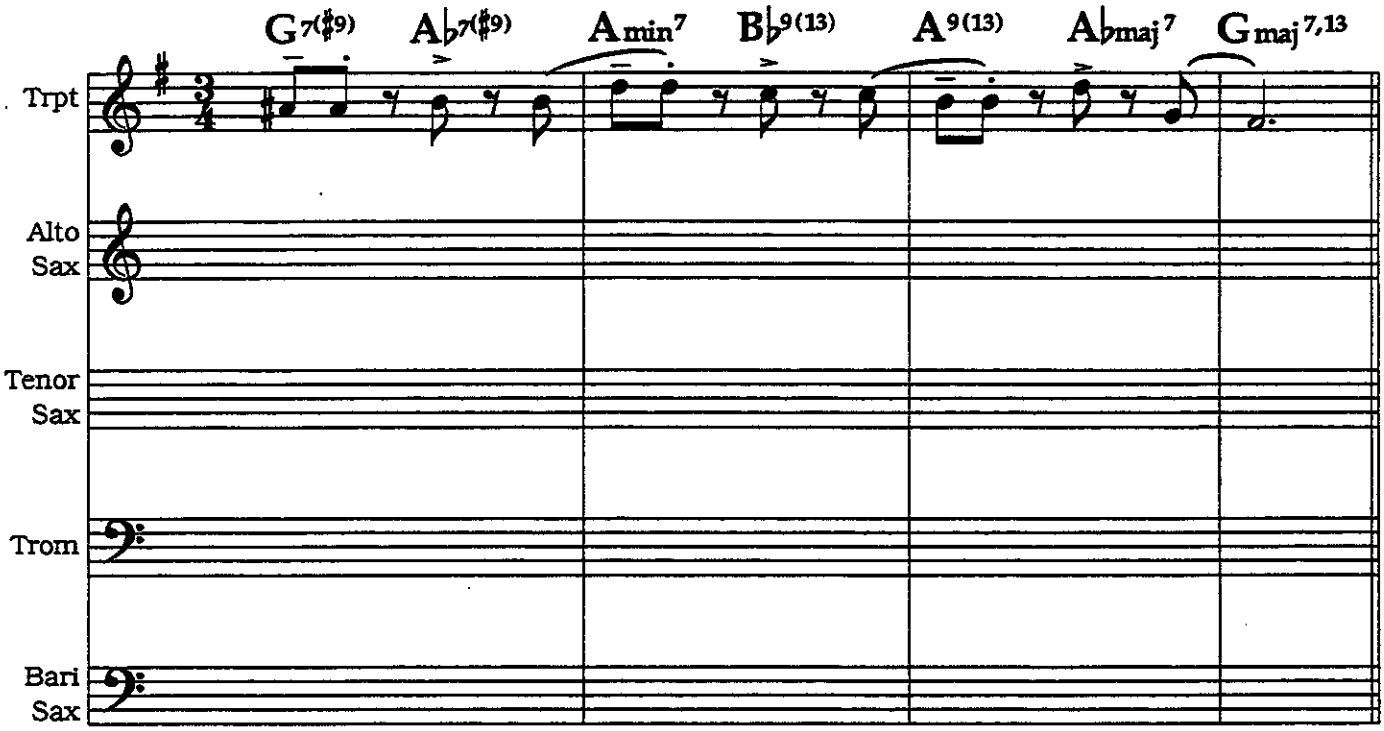
B. Complete spread voicings over the given baritone sax line. Write a transposed score. (Chord symbols are in concert key.)



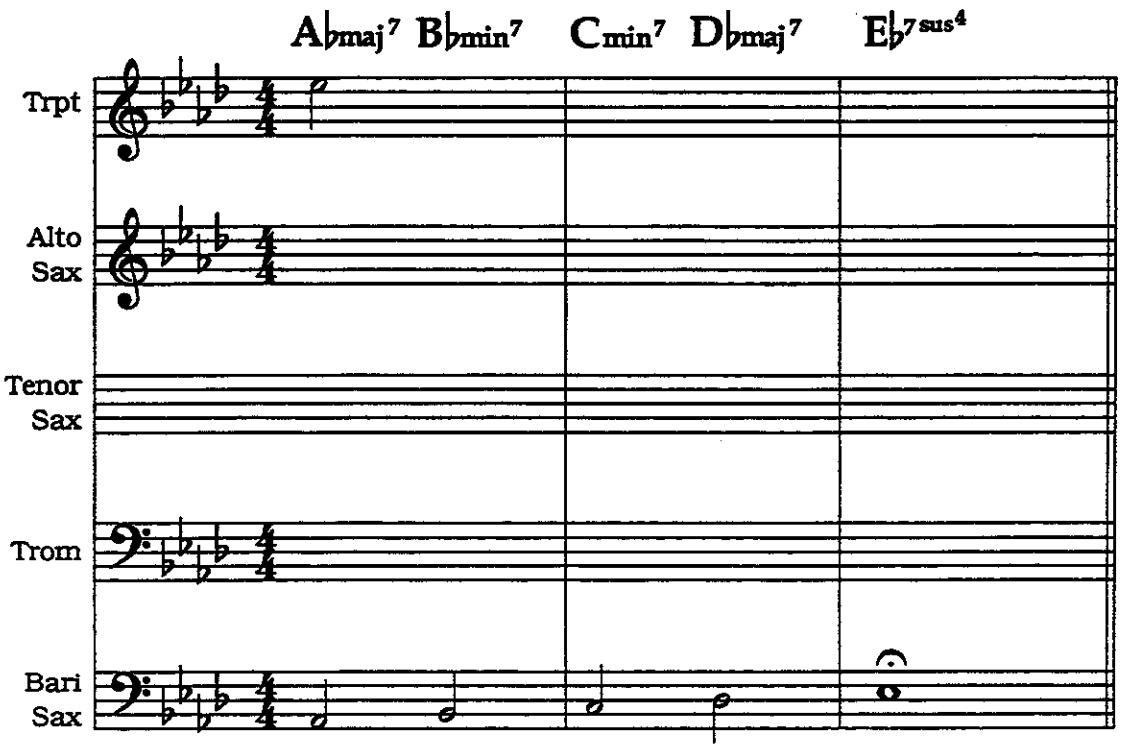
C. Create a spread voicing background using the indicated chord progression. Employ rhythmic anticipation and delay techniques. Write appropriately supportive rhythm section parts. Your score may be in concert or transposed.



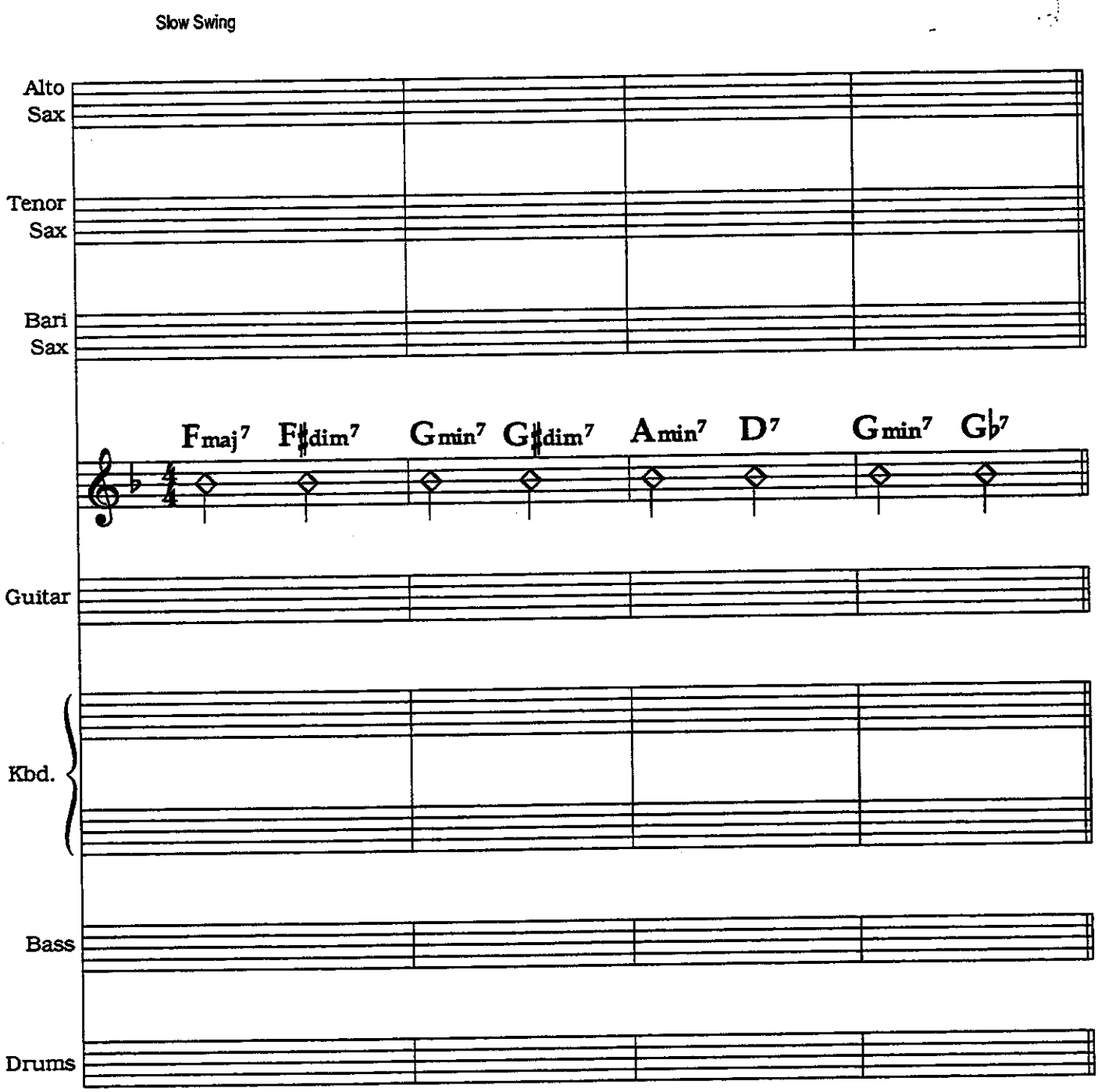
D. Harmonize the given lead so that the resultant voicings are five part spreads. Write your score in concert.



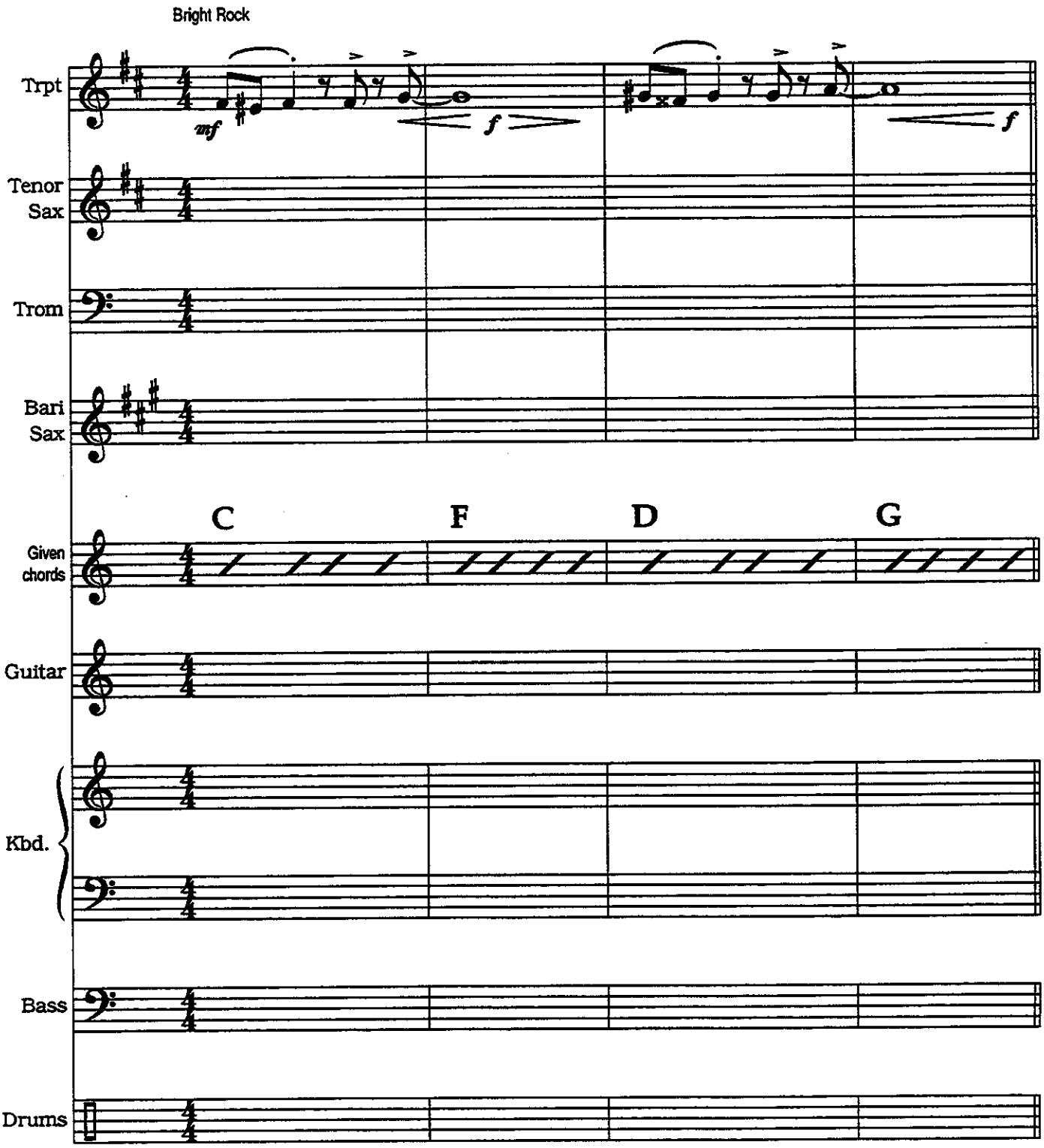
E. Complete spread voicings over the given baritone sax line. Write in concert key. Be sure that trumpet and baritone sax are *always* in contrary motion.



F. Create a background with non-triadic three part spreads using the indicated chord progression. Employ rhythmic anticipation and delay techniques. Write appropriately for the rhythm section. Your score may be transposed or in concert.



G. Arrange this phrase using four part *triadic* spreads only. Also write appropriately for the rhythm section. (Be sure to catch the two opportunities for approach reharmonization.)



CHAPTER FOURTEEN
ROUTINING AN ARRANGEMENT

The responsibility of routining an arrangement may belong to the artist, the producer, or, just as frequently, to the arranger.

Among the things to be considered in routining are:

A. The Introduction
   1. length
   2. complexity
   3. relationship to the song(s)
      a. melodic?
      b. harmonic?
      c. rhythmic?
      d. none?

B. Overall Length
   1. number of verses, choruses, interludes, etc.

C. Assignment of Lead
   1. what's available
   2. who (what) is to be featured?
   3. use improvisation?
   4. interest (variety) factor
   5. endurance factor

D. Emotional/Dynamic Shape
   1. straight line?
   2. continual build to climax?
   3. long build to climax then quickly down?
   4. multi-climax?
   5. arch?
   6. modulation(s)?
   7. vary rhythm section "groove"?

E. Ending
   1. loud or soft?
   2. final "button" or sustained chord?
   3. fade?
   4. relationship to preceding material, including the introduction
      a. melodic?
      b. harmonic?
      c. rhythmic?
      d. none?

The arranger should have some idea, however general, of the form of the arrangement before starting on the score. Some people draw specific diagrams which depict the details of the routine prior to putting notes on paper. Others mentally work our, or "hear," what they want the arrangement to accomplish before they write it.

Many arrangers use a keyboard or other instrument to work with the material in order to get a feeling for how the routine might best develop.

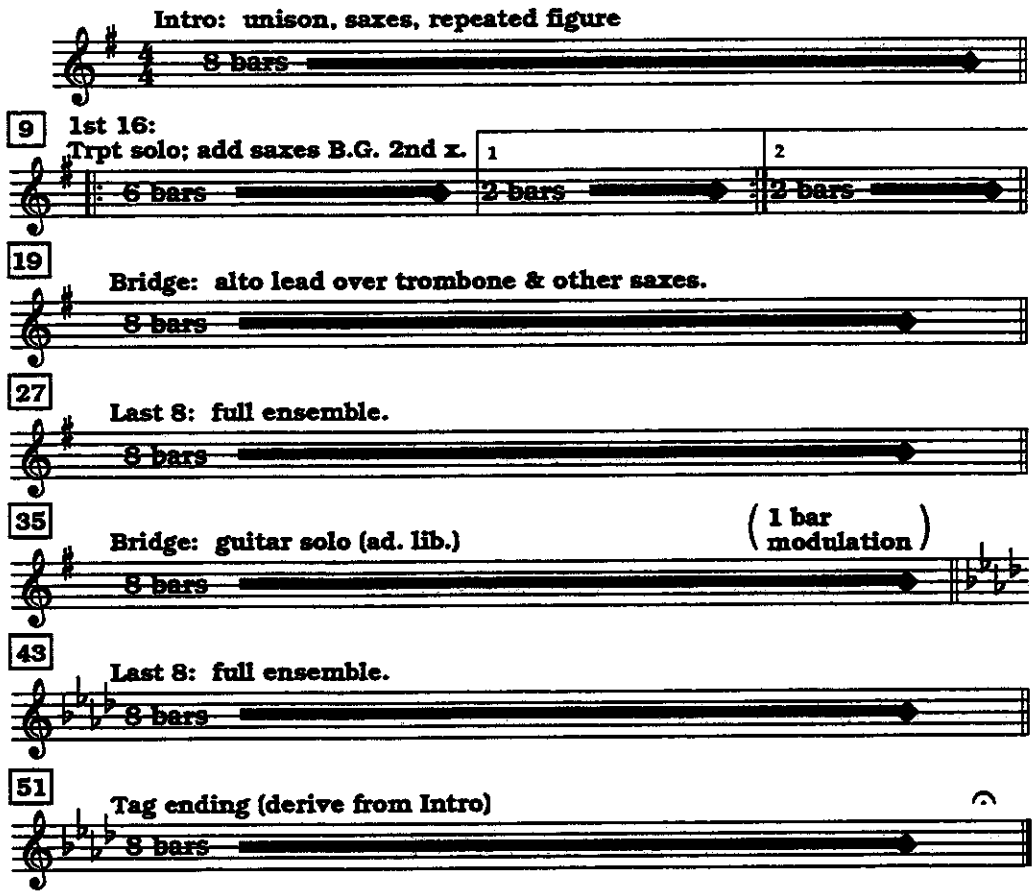
The student of this course, however, need be concerned only with making

a simple diagram which depicts the following:

a. length of introduction
b. location of each verse, chorus or other formal element
c. length of ending
d. key signature(s) and placement of modulation(s)
e. rehearsal numbers (or letters)

See example 1.

Ex. I



CHAPTER FOURTEEN
HOMEWORK

1. Choose a tune for your final project.
2. Work out a well-conceived routine which conforms to the general guidelines given by your teacher.
3. Try to "hear" mentally (imagine) what form you want your arrangement to take. Experience it in your mind as an audience would experience it at a performance. If you don't like what you "hear," change it. You are in charge!
4. Create a sketch or diagram of your arrangement similar to that shown in Example 1.

CHAPTER FIFTEEN

BASIC PRINCIPLES OF ARTICULATION

Proper use of articulation helps ensure that certain of the arranger's intentions will be known to, and carried out by, the musicians whose task it is to interpret the music.

The arranger who uses inadequate or improper articulation will most certainly waste rehearsal time explaining and singing what could have been written into the score and the parts in the first place. He/she also runs the risk that the music may never be properly performed.

There is nothing revolutionary in this chapter except, perhaps, the implication that traditional methods of writing articulation are still the most consistent and effective means available. They have been used by musicians such as Mozart, Stravinsky, Ellington and John Williams. They are efficient at expressing most of the articulations required in all styles of music.

Lacking the command of a language which is capable of expressing original and/or complex ideas, one tends to lose the ability to imaging anything new. That may be the most important reason why the student should work at making proper articulation part of his/her musical vocabulary.

It takes time and effort to develop the ability to write appropriate articulation. Every professional arranger must occasionally spend time deciding on which, if any, articulative marking should be used. It often turns out that there is more than one solution to the problem.

This chapter deals specifically with articulation for wind instruments. Instruments in other categories share some, but not all, of these principles.

1. Any note without articulative marking receives an attack which is consistent with the dynamics and style of the passage. It is sustained for its full duration.

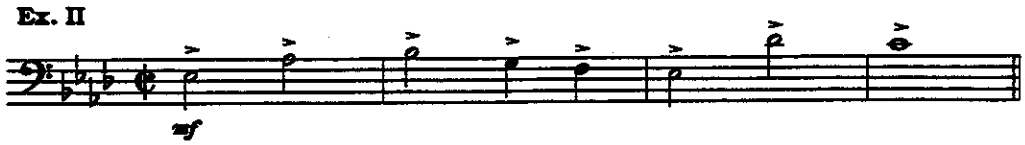
2. A dot over a note whose value is a quarter note or less indicates "staccato." Many definitions of staccato exist, but for the purposes of the commercial arranger, a staccato note is "short." See example I.

Ex. I

3. A normal accent over a note indicates that the note is to receive an intensified attack, relative to the dynamics and style of the passage. An accent does not alter the duration of a note.

The normal accent may be used at any dynamic level. See Example II.

Ex. II

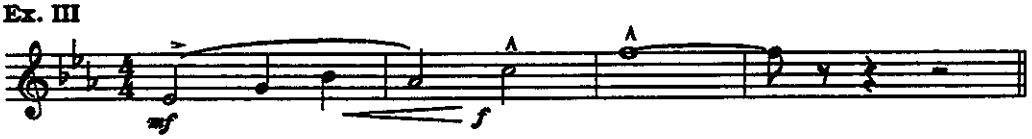


4. A heavier accent indication also exists. It is given different names in various reference books; this book will align itself with those who use the term "sforzando."

The sforzando accent should be saved for situations which clearly call for something heavier than the normal accent. Its use is not appropriate at dynamic levels softer than *mf*.

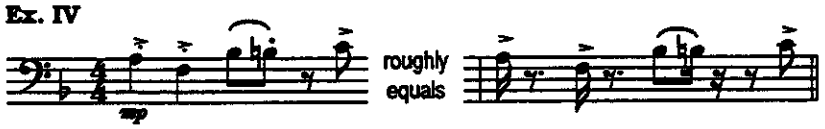
Remember: no accent alters the duration of a note. See example III.

Ex. III



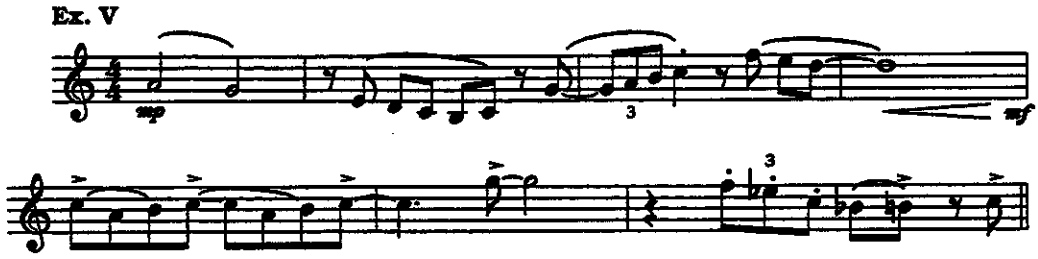
5. To indicate accentuation AND shortened duration of a note whose written value is a quarter note or less, place a staccato mark over the note with the appropriate accent over the dot. See Example IV.

Ex. IV



6. The "slur" is used over a group of two or more notes to indicate an unbroken flow of sound. The slur is interrupted by anything that interrupts the flow, such as a staccato note, a rest or a heavily accented note. See Example V.

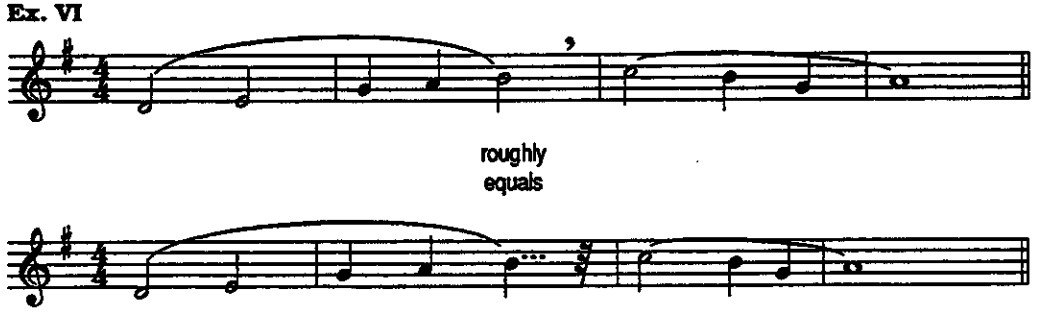
Ex. V



The end of one slur followed immediately by the start of another slur may (or may not) indicate a place to breathe. The new slur definitely indicates a new attack (tongue), but not necessarily an accented one.

To ensure that a breath is taken between adjacent slurs, use a "breath mark." The breath mark resembles a comma and goes just over the staff, just before the start of the new slur. It is, in effect, a grace rest. See Example VI.

Ex. VI



It is important not to confuse the slur with the "phrase mark," which has no logical place in music for wind instruments.

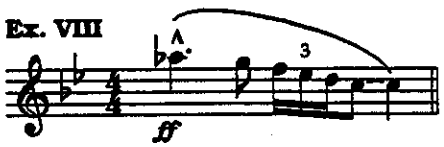
The term "phrasing," however, properly applies to the interpretation of a musical passage. Good and consistent phrasing is a result of proper notation, with careful attention to dynamics and articulation.

7. The normal accent may be used under a slur to indicate an accentuation of the note without breaking the flow of sound. See Example VII.

Ex. VII

The sforzando accent never belongs under a slur, except, possible, on the first note of an extremely strong slurred phrase. See Example VIII.

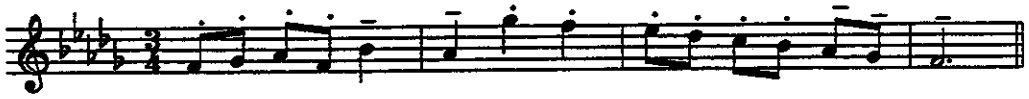
Ex. VIII



8. The "tenuto mark," a dash over the note, is used for a number of purposes.

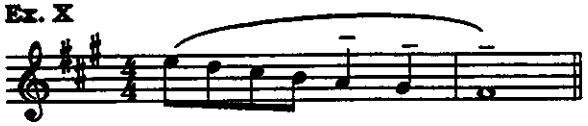
a. To reassure the player that a note is to receive full value even though it appears in conjunction with staccato notes. Although this is theoretically unnecessary, it is often practical. See Example IX.

Ex. IX



b. To indicate soft tonguing (legato tongue), or a breath push, of a note under a slur, resulting in a subtle emphasis of that note. See Example X.

Ex. X



c. To indicate a slight separation between notes which receive nearly their full duration. This is a common traditional (classical) use of the tenuto mark. See Example XI.

Ex. XI

Use articulative markings when they will clarify your intent. Don't use them just to decorate the page. In general, use the least complex notation possible which will convey your ideas (to the reader) with the smallest chance for misinterpretation.

Some Good Advice

From this point on, you should attempt to apply these principles of articulation for wind instruments in every arrangement you write. Score and individual parts should be identically articulated.

N.B. Do not be dissuaded by players (and others) who insist that articulation is not necessary or that idiosyncratic shortcuts will suffice.

Do not be discouraged if your first efforts in this area are not totally successful. Insist that your music be interpreted the way you have written it. Only then will you be able to determine whether or not your writing was consistent with that you intended.

Your final project should reflect the information covered in this chapter.

CHAPTER SIXTEEN

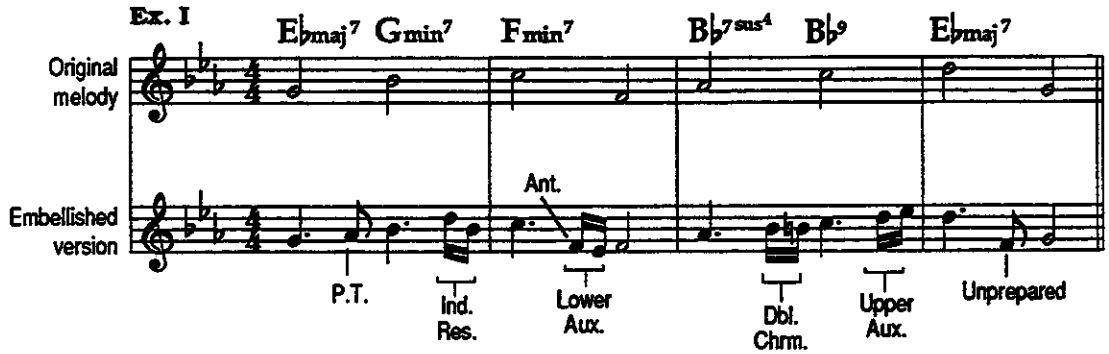
MELODIC EMBELLISHMENT

Melodic embellishment is a device used by arrangers to create variations of existing lead, solo and background lines. These variations are introduced to create interest or to adapt a melody to a particular musical style. This is one of the compositional techniques which are essential to the arranger's craft.

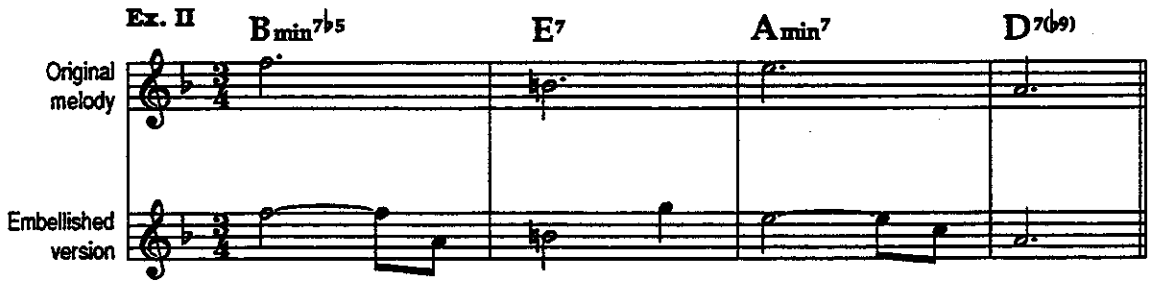
For most purposes, including the satisfaction of the requirements of this course, embellishments should not obscure or distort the original melody beyond recognition.

One method of creating melodic embellishments is through the interpolation of approach notes. Any of the approach devices (which have been reviewed earlier in the chapter on Approaches) may be originated by the arranger.

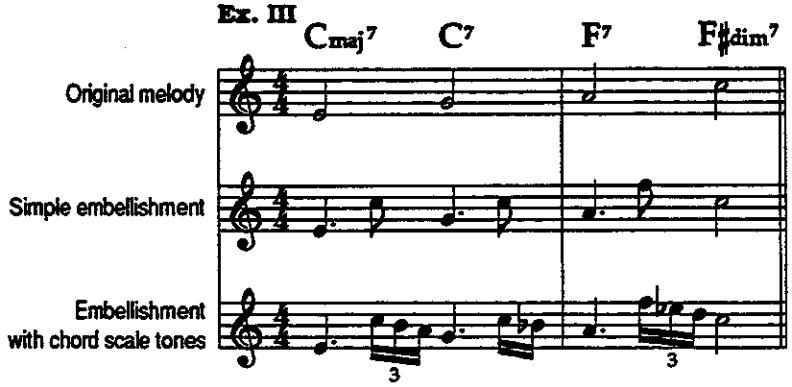
Examples of the use of standard approaches for the purpose of embellishment are demonstrated in Example I.



A note may be preceded by a single chord tone derived from the chord which applies to the prior melody note. See Example II.



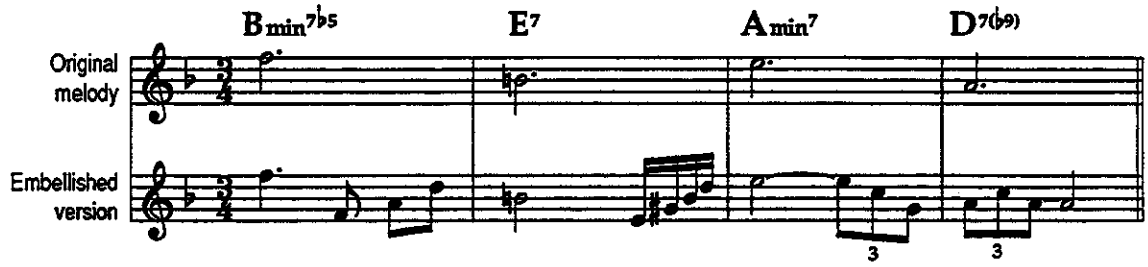
A single chord tone embellishment may also be connected to the next melody note by one or more chord scale tones. See Example III.



Another method is the use of arpeggiation to supply motion when a given melody note is sustained. The notes of the arpeggiated figure are derived from the prevailing harmonic indication.

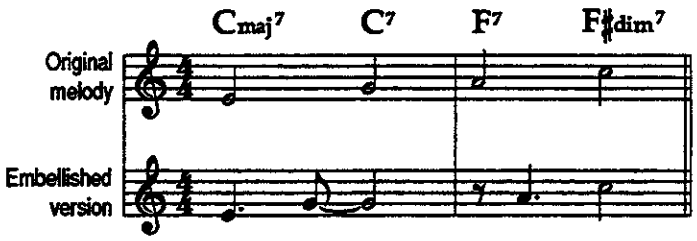
Arpeggiation usually starts after the note has been sustained long enough to be established in the listener's ear. See Example IV.

Ex. IV



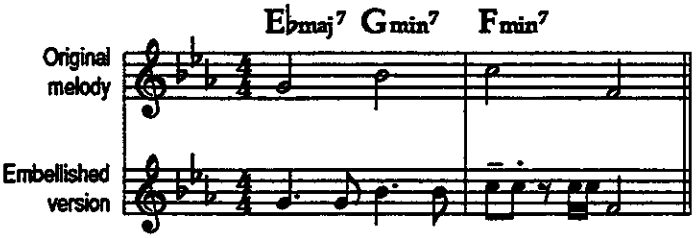
Anticipated and delayed attacks are also used to vary melody lines. See Example V.

Ex. V



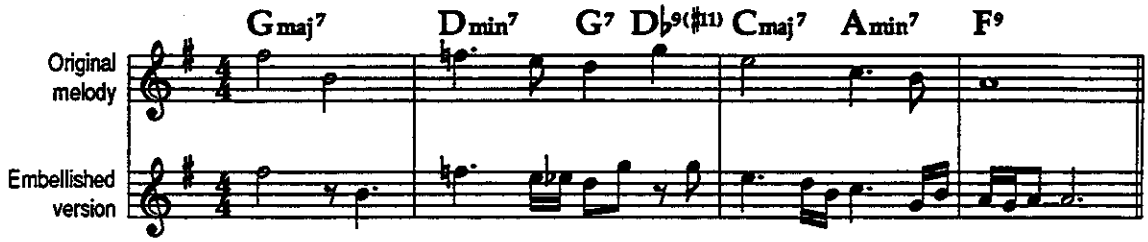
Reiteration of a note adds rhythmic interest without introducing new pitches. See Example VI.

Ex. VI



These various techniques of embellishment may be used in combination with each other. See Example VII.

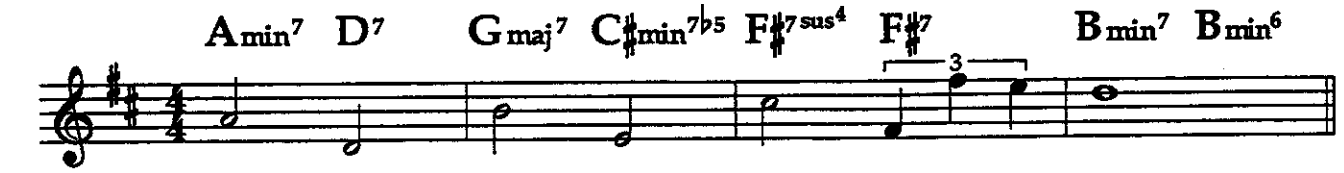
Ex. VII



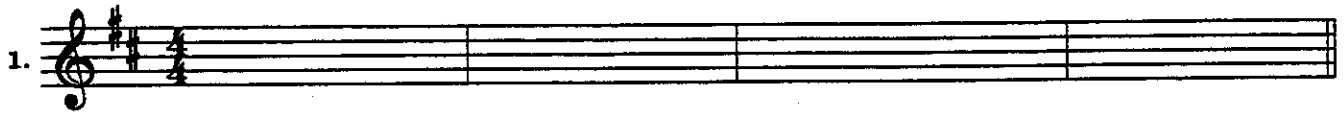
The arranger is constantly experimenting with methods by which melodies may be enhanced.

CHAPTER SIXTEEN
HOMEWORK

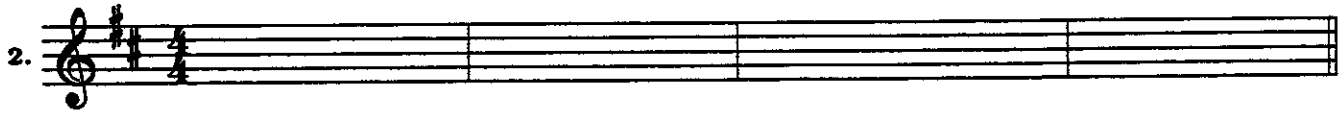
Embellish the given melody six different ways. Do not reharmonize. Write articulation for each embellishment as if it were to be played by a wind instrument. Do not write chord symbols over your work.



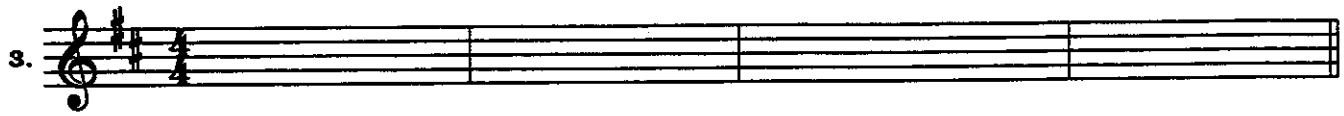
1.



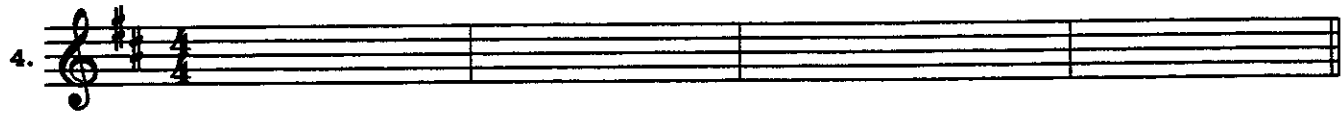
2.



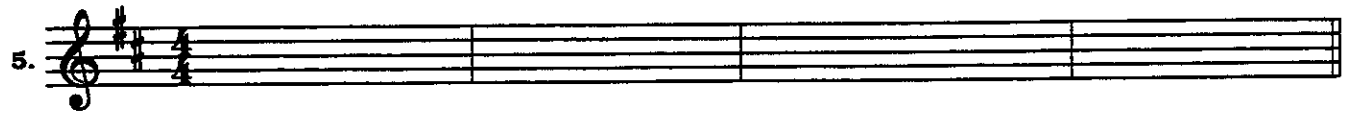
3.



4.



5.



6.

CHAPTER SEVENTEEN

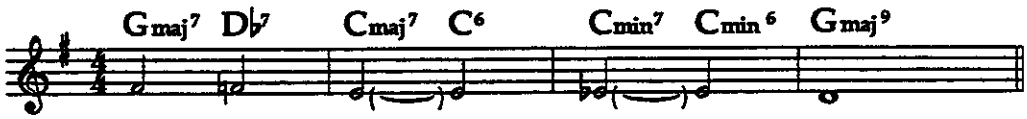
GUIDE TONE BACKGROUND LINES

Guide tones form an excellent basis for creating an effective unison background line, providing a countermelodic thread which leads through the harmonic progression.

The arranger should take care that background lines are scored so as to avoid interference with the written melody. Ideally, background and lead should not duplicate each other in the areas of range, timbre, dynamics or pitch.

Guide tones are voice led, from one chord to the next, stepwise or through common tones. See Examples I and I-a.

Ex. I



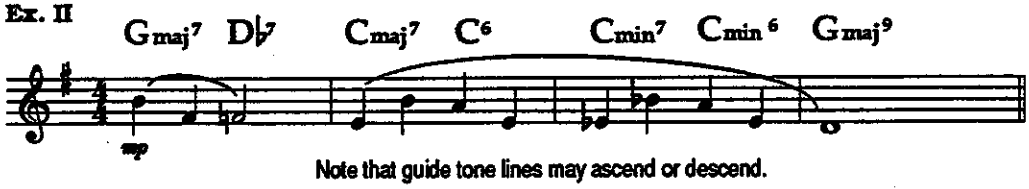
Note: Common tones may be tied or reiterated

Ex. Ia

Two sets of guide tones for the same progression.

Within the duration of a chord, the guide tone may move to another chord tone which, as a result, becomes part of the guide tone line and must be voice led as explained above. See Example II.

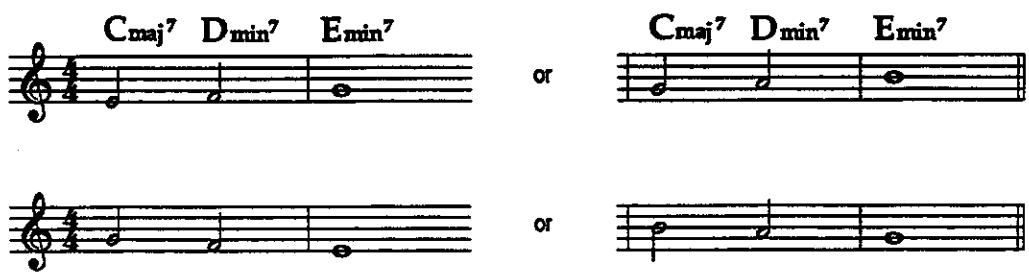
Ex. II



Note that guide tone lines may ascend or descend.

Watch for interesting situations which may be lurking in the midst of a progression. For instance, contrary motion can be created between the root line (bass line) and the guide tone line when the chord progression is I maj7, II min7, III min7, in which case the bass line has upward stepwise motion. The guide tone line can be 7, 5, 3, which has downward stepwise motion. See Example III.

Ex. II

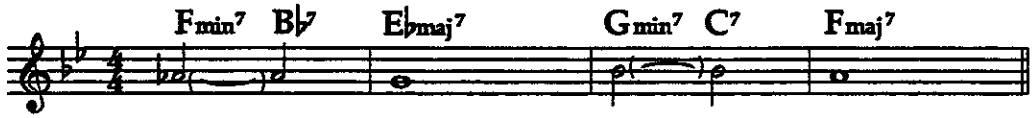


Voice leading tendencies may be suspended:

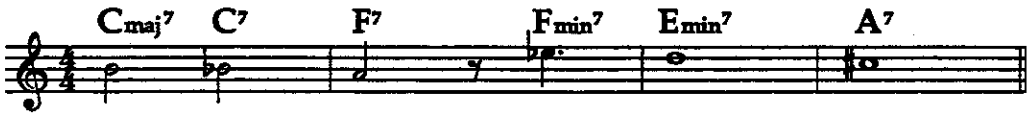
a. following a I chord
b. following a rest
c. after the completion of a phrase.

See Example IV.

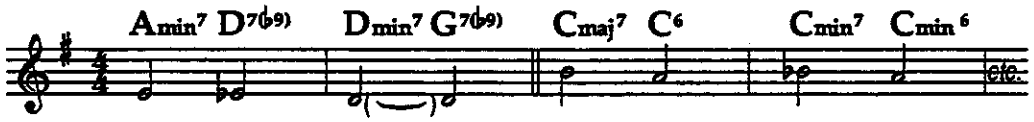
Ex. IVa



Ex. IVb

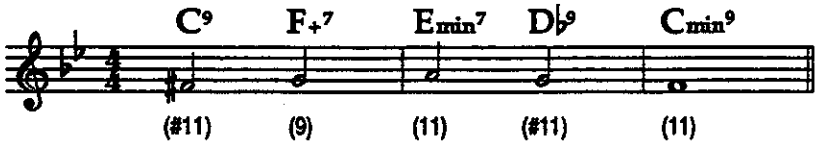


Ex. IVc



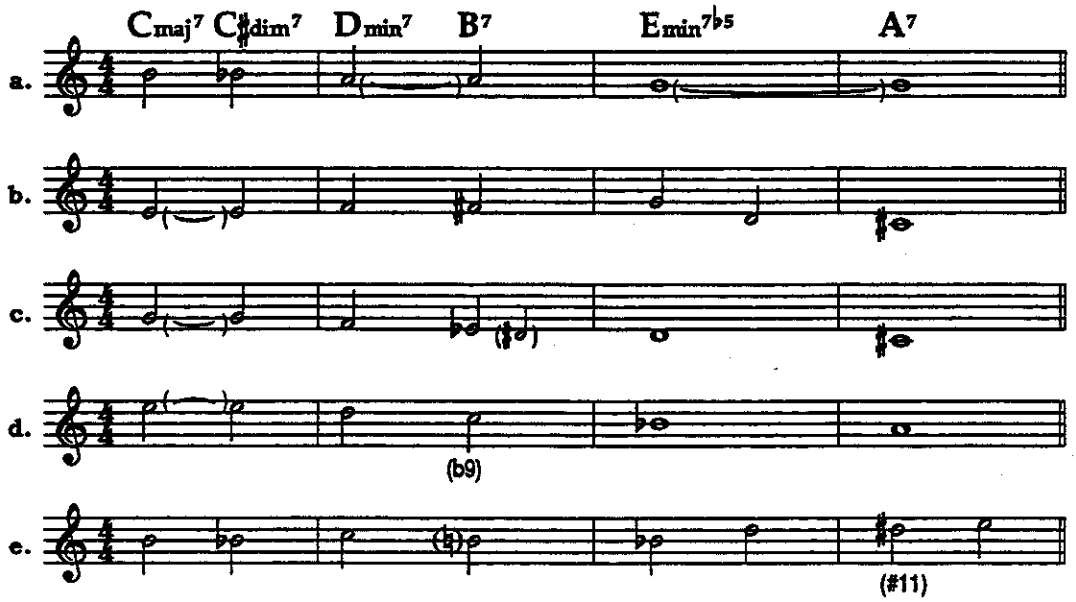
The more experienced arranger may eliminate the element of predictability from guide tone lines by using tensions in their construction. See Example V.

Ex. V

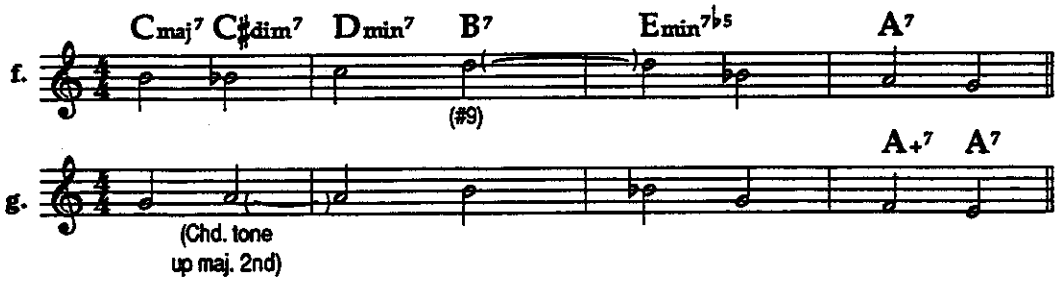


Example VI shows seven guide tone lines constructed to the same chord progression. Other lines could also be created to work in this harmonic circumstance.

Ex. VI

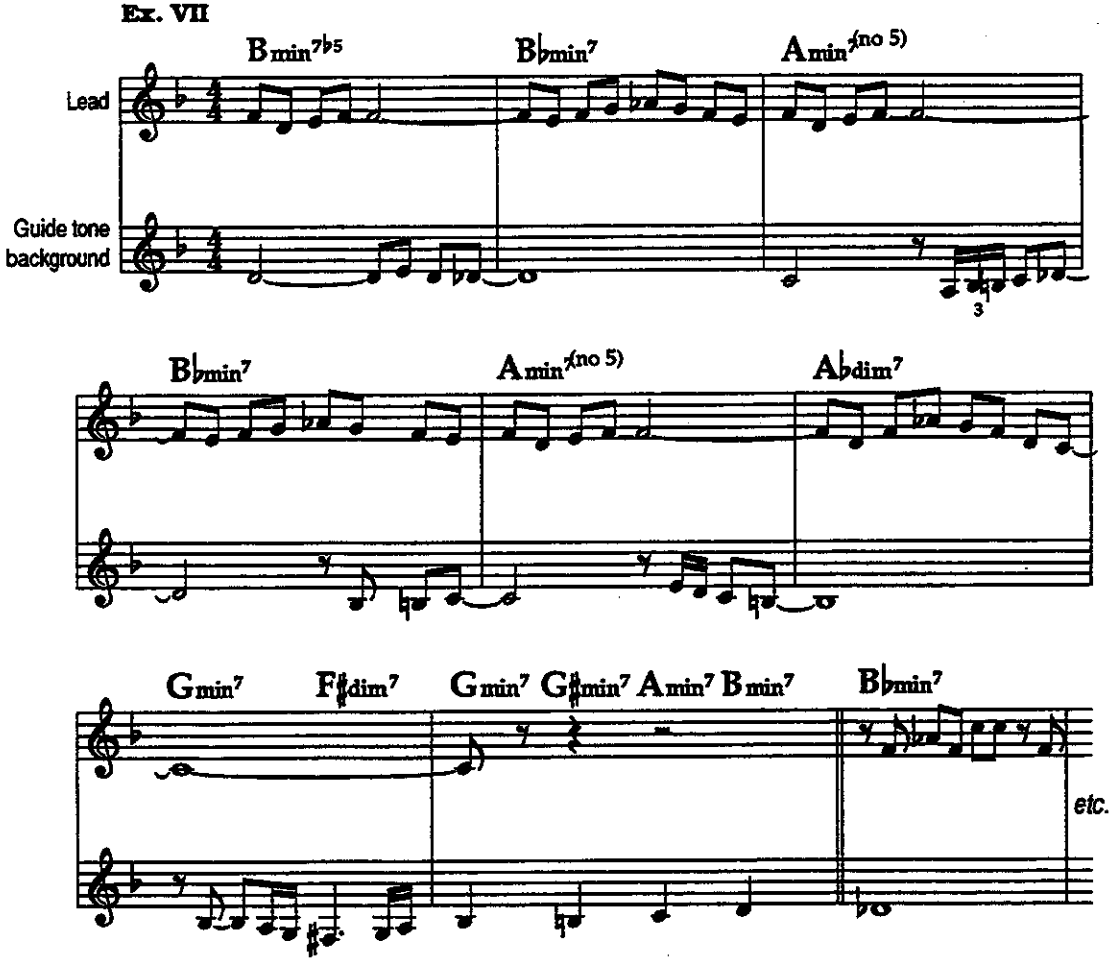


Ex. VI cont'd



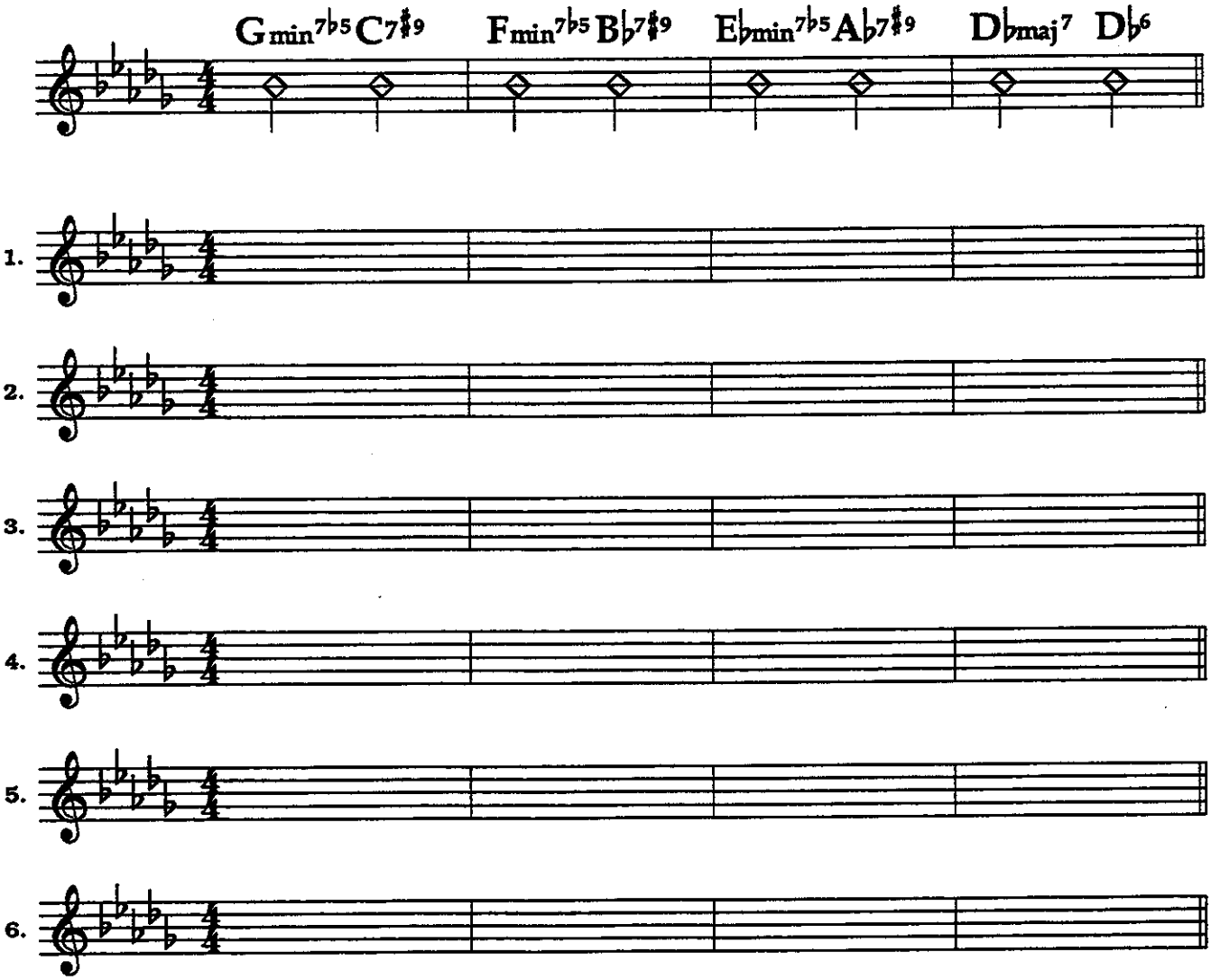
Activity may be added to guide tone backgrounds by the tasteful inclusion of melodic embellishment. In general, activity should be reserved for times when the written melody is sustaining a note or is silent. See Example VII.

Ex. VII

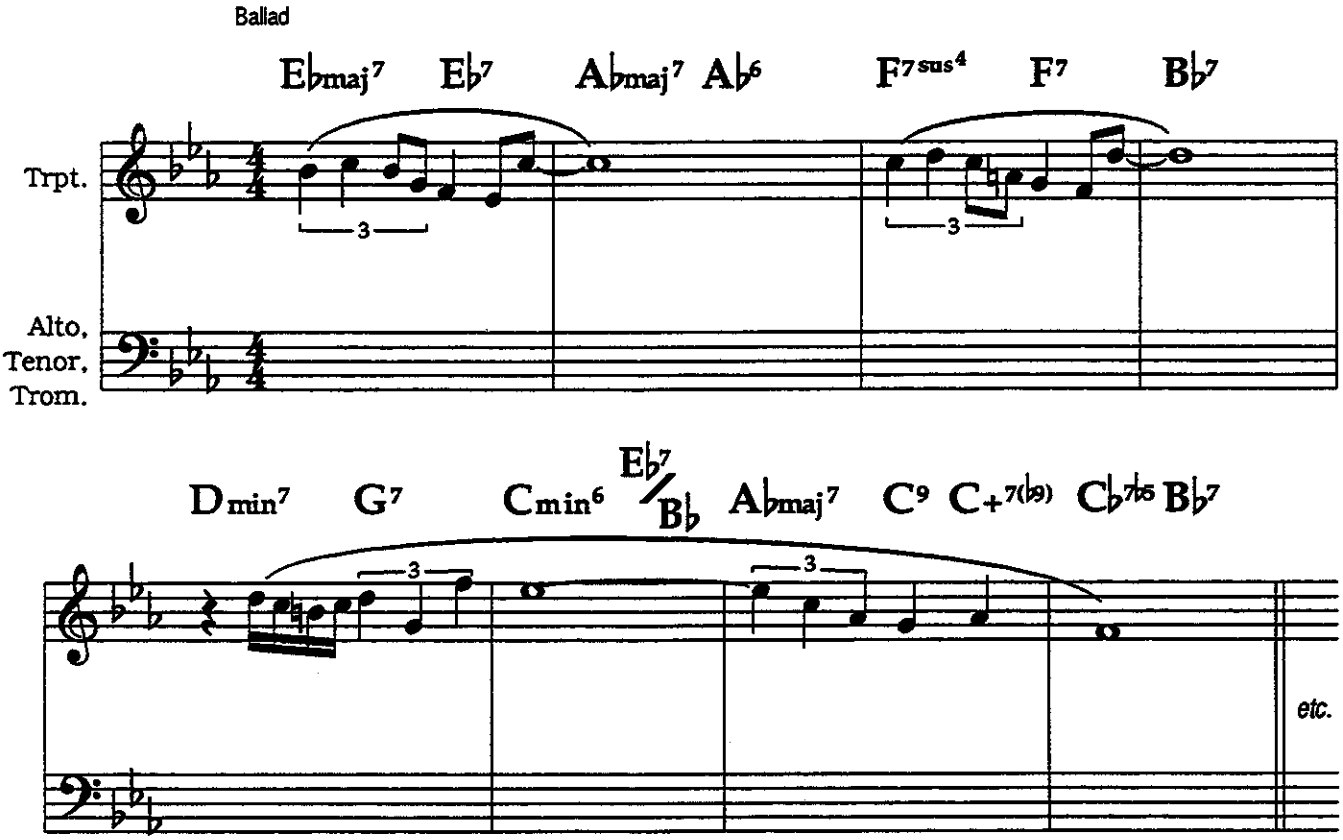


CHAPTER SEVENTEEN
HOMEWORK

A. Write six different guide tone lines to the given chord progression. The first three should not be embellished; the last three should have some embellishment.



B. Write a guide tone line to accompany the given melody. Create appropriate embellishments. Write articulation for the guide tone line. (The melody is played by a trumpet; the guide tone line is played by alto sax, tenor sax and trombone in prime unison. Include appropriate dynamics.)



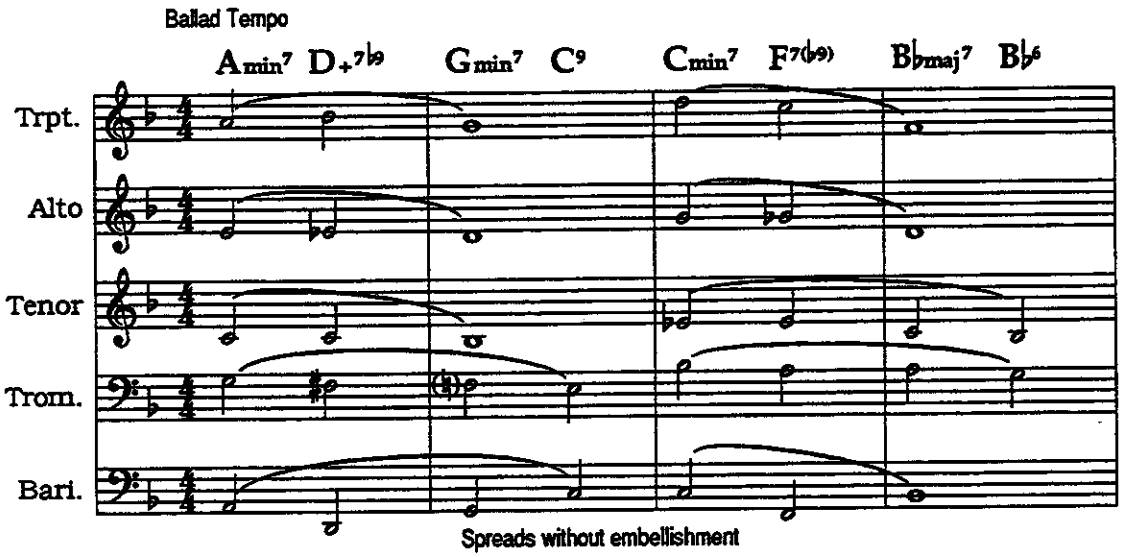
CHAPTER EIGHTEEN

INNER VOICE EMBELLISHMENT
(in spread voicings)

When spread voicings are being used, and a chord is sustained, the arranger may add some activity by applying the principles of melodic embellishment to one or more of the inner voices.The method is simple:

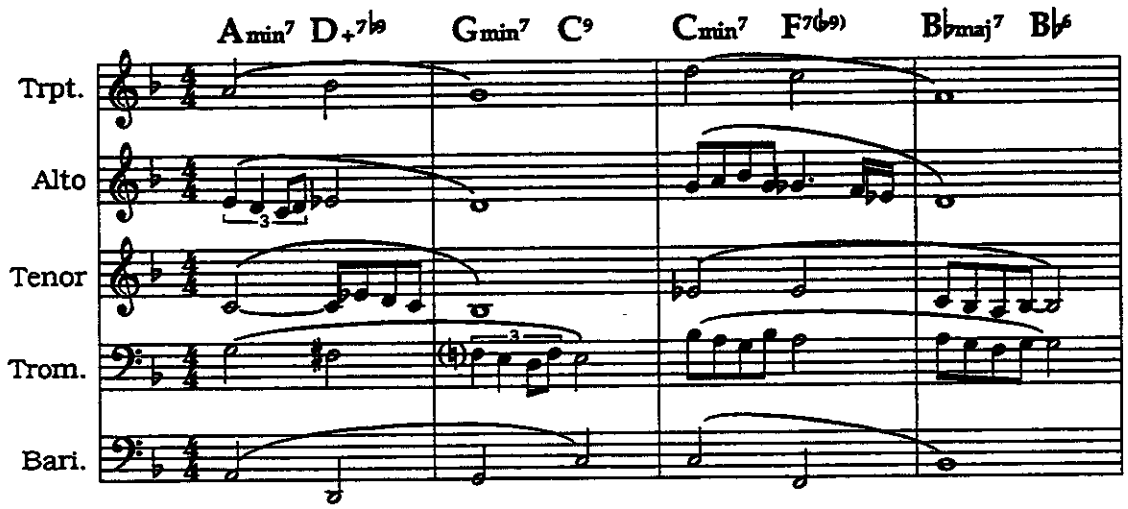
1. Voice the passage in the normal manner.
2. Locate a place in the phrase where some inner voice activity would be desirable, such as when lead sustains or rests.
3. Choose an inner voice that is in a good register for motion.
4. At the appropriate point, consider that instrument's line as though it were a melody and embellish it. Avoid using independent anticipations or delayed attacks.
5. Repeat the procedure with the same or a different voice if other places in the phrase warrant it. See Examples I and I-a.

Ex. I



Spreads without embellishment

Ex. Ia

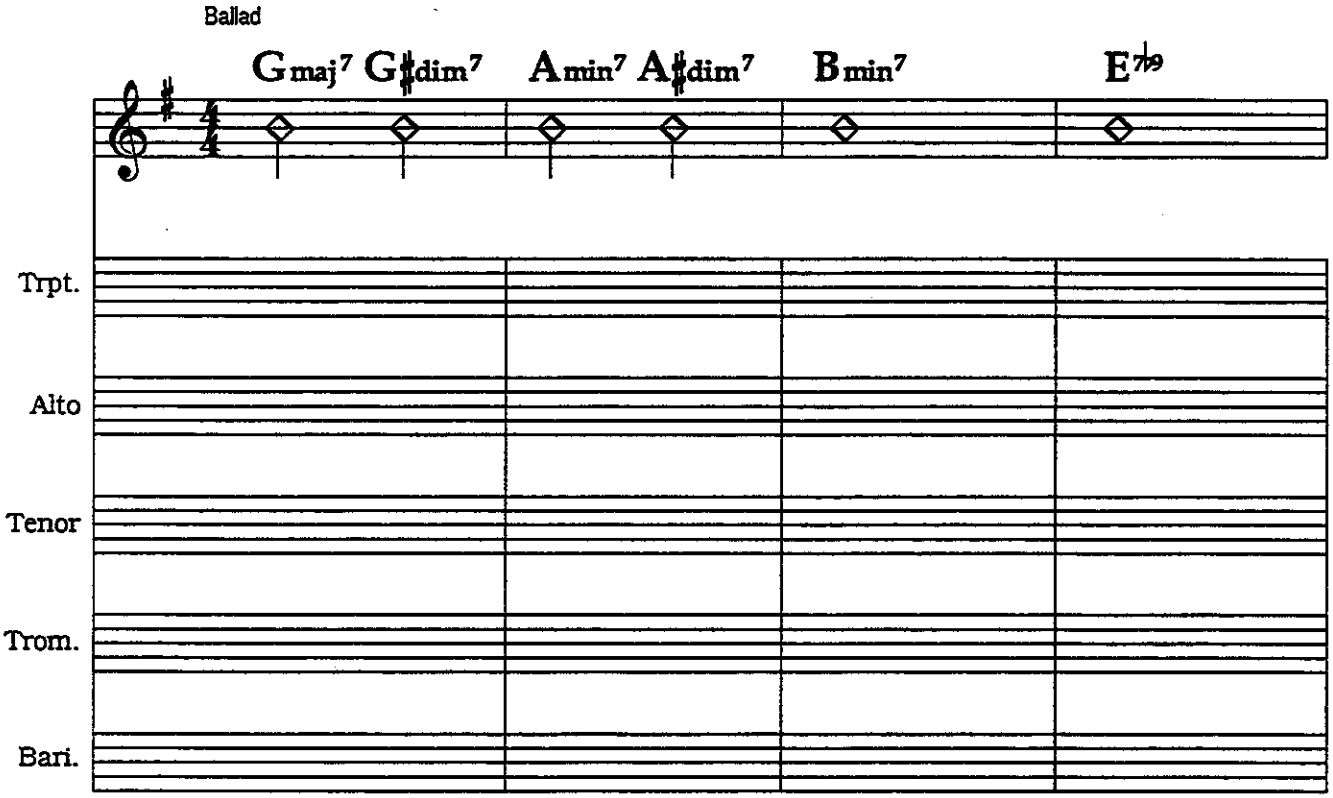


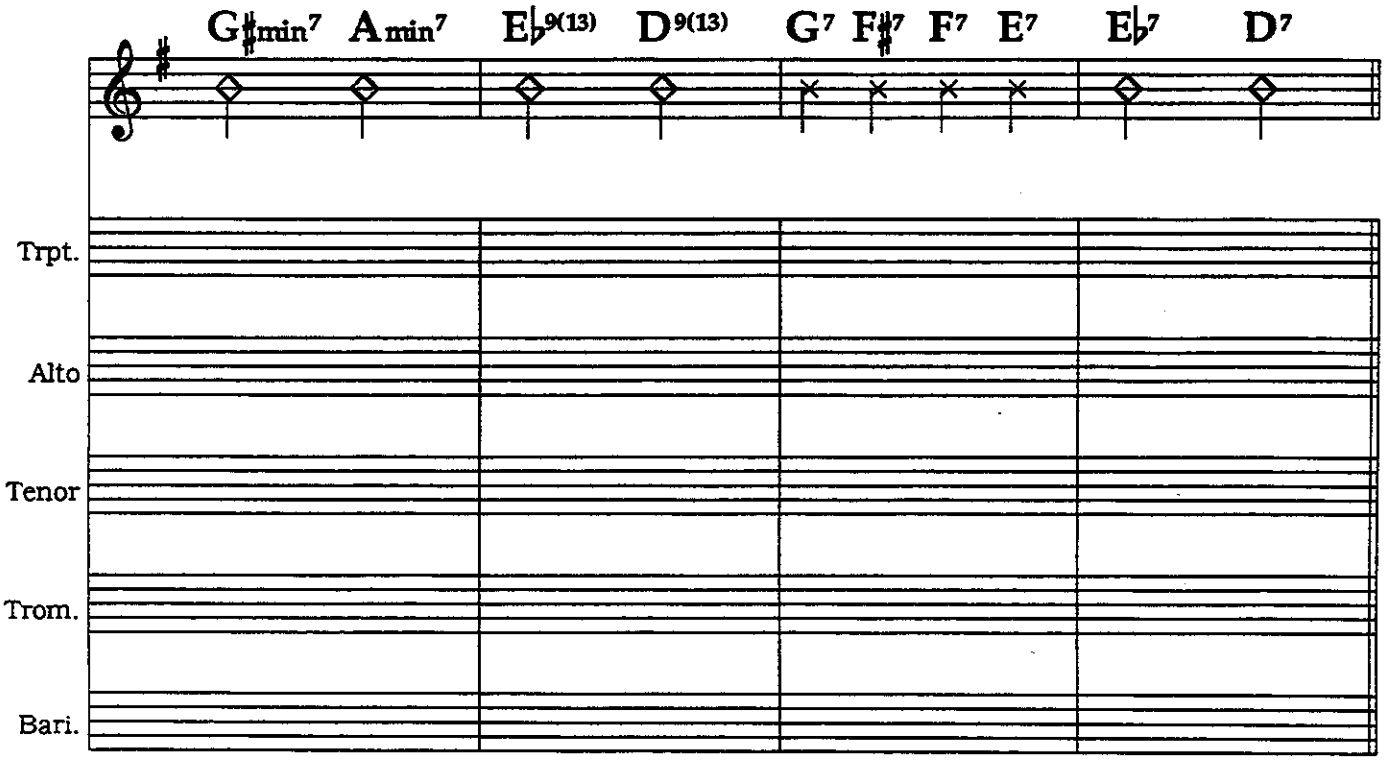
Same spreads with inner voice embellishments.
Note: more than one voice may move at one time, but care must be taken not to create clashes or too much busyness.

CHAPTER EIGHTEEN

HOMEWORK

Write spread voicings according to the given chord progression. Create tasteful inner voice embellishments.





CHAPTER NINETEEN
TOOLS AND RULES

The object of this course was to supply certain basic arranging techniques along with guidelines for their use. However, it must be understood that in any art, most rules (especially the restrictive ones) are not absolutes. They exist mainly to enable the student to accomplish things up to a particular level while avoiding disaster.

Talent, creativity, originality and continuous hard work must be supplied by the student. The degrees to which these elements exist and are utilized will determine the quality of his/her writing.

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